



**CITY OF BRISTOL, VIRGINIA
INVITATION TO BID**

LEE HIGHWAY WIDENING – PHASE 1B

**ROADWAY WIDENING AND IMPROVEMENTS OF: LEE HIGHWAY;
NORTHBOUND AND SOUTHBOUND OFF-RAMPS AT INTERSTATE 81, EXIT 5;
AND ISLAND ROAD**

**CITY OF BRISTOL CAPITAL PROJECT NO. 95735
CITY OF BRISTOL DRAWING NO. T30-229
VDOT PROJECT NO. 0011-102-728, P101, R201, C501
VDOT UPC NO. 105309**

ISSUE DATE: FRIDAY, May 3rd, 2024

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SECTION ONE

1.1 Purpose

The City of Bristol, Virginia (City) is requesting sealed bids from qualified contractors to construct Lee Highway Widening – Phase 1B. The improvements consist of widening Route 11 (Lee Highway) from four lanes with a center turn lane to six lane urban section from 450-feet east of Island Road to the I-81 (Exit 5) southbound off-ramp. Additionally, northbound and southbound Exit 5 off-ramps along with approximately 400-feet of Island Road will be widened from two lanes to three lanes. Traffic signal replacement or upgrades are proposed for both I-81, Exit 5 off-ramp intersections and the Island Road intersection. The project shall be performed in accordance with criteria set forth in the contract documents which shall include these bid documents.

1.2 Scope

This document contains general information relating to the evaluation process, selection criteria and mandatory requirements that must be addressed for a bid to receive consideration.

1.3 Closing Date and Time

Bids must be received by the City, Office of the Procurement Specialist, 300 Lee Street, Bristol, Virginia not later than **2:00 p.m. on Monday, June 3rd, 2024**. Bids will not be received after this date and time. Bids submitted by facsimile or email will not be accepted. The completed and signed bid form shall be returned in an envelope or package, sealed and addressed as follows:

**Office of the Procurement Specialist
300 Lee Street
Bristol, Virginia 24201**

**Bid on Lee Highway Widening – Phase 1B
Due Date: 2:00 p.m., Monday, June 3rd, 2024**

**VDOT Prequalified Contractor No. _____
Virginia Disadvantaged Business Enterprise (DBE) No. _____**

1.4 Contract Documents

The Invitation to Bid, including plans and specifications will be available in PDF format on the City's web site at <https://www.bristolva.org/bids.aspx> or by email at grayson.toler@bristolva.org beginning **Friday, May 3rd, 2024**. The plans and specification may also be examined at Builders Exchange of Tennessee (<http://www.bxtn.org>), Valley Construction News (<http://vcnonline.com>) or Virginia's Marketplace (<https://www.eva.virginia.gov>). Paper copies of the plans and specifications may also be purchased from Tri City Blueprint & Supply, Inc. (<https://www.tricityblueprint.com>).

1.5 Inquiries

All questions requesting interpretation or clarity to the Contract Documents must be submitted in writing to the City Engineer, 300 Lee Street, Bristol, Virginia 24201-4327. Alternatively, contact us via email at grayson.toler@bristolva.org or uma.pokuri@bristolva.org (Transportation Engineer). Interpretations or clarifications considered necessary by the City Engineer in response to such questions will be provided by Addenda e-mailed to all parties recorded by the City as having received the Contract Documents. Questions received less than seven (7) days prior to the date for opening of Bids may not be answered. Verbal or other interpretations or clarifications will be without legal effect.

Addenda may be issued to correct, clarify or change the Contract Documents at the discretion of the City Engineer.

1.6 Qualifications of Bidders

The Bidder shall be a VDOT prequalified contractor and shall provide evidence of such with the bid submittal. A list of VDOT prequalified contractors can be found at: <http://www.virginiadot.org/business/resources/prequalified-list.pdf>

This project is federally funded and has disadvantaged business enterprise (DBE) requirements. There shall be a **7% Disadvantaged Business Enterprise (DBE) goal** assigned to this project. The bidder shall show evidence of meeting the disadvantaged business enterprise (DBE) requirements. A list of Virginia certified disadvantaged business enterprise (DBE) vendors can be found at: <https://directory.sbsd.virginia.gov/#/directory>

1.7 Pre-Bid Conference

A Pre-Bid Conference will be conducted virtually on **Friday, May 17th, 2024 at 2:00pm**. **Attendance of the Pre-bid conference will be mandatory** in order for bids to be considered. Interested Contractors must email the City Engineer to request pre-bid meeting login information. Email requests should go to: grayson.toler@bristolva.org. All request for pre-bid login information must be requested by **4:00 pm, Thursday, May 16th, 2024**.

1.8 Evaluation of Bids

Evaluation of bids will be based on criteria set forth in this invitation. The award will be made to the lowest responsive and responsible bidder.

1.9 Withdrawal of Bids

Withdrawal of bids shall be in accordance with procedure (i) of Section 2.2 – 4330 of the Code of Virginia.

1.10 Rejection of Bids

The City reserves the right to reject any and all bids, and accept the lowest responsive and responsible bidder. The City reserves the right to discard all bids which are nonconforming, nonresponsive, or conditional.

END OF SECTION

SECTION TWO

2.1 General Instructions and Specifications

The City is requesting sealed bids from qualified contractors to construct Lee Highway Widening – Phase 1B. The improvements consist of widening Route 11 (Lee Highway) from four lanes with a center turn lane to six lane urban section from 450-feet east of Island Road to the I-81 (Exit 5) southbound off-ramp. Additionally, northbound and southbound Exit 5 off-ramps along with approximately 400-feet of Island Road will be widened from two lanes to three lanes. Traffic signal replacement or upgrades are proposed for both I-81, Exit 5 off-ramp intersections and the Island Road intersection.

All work is to be performed in accordance with the City plans and specifications; Virginia Department of Transportation (VDOT) guidance documents; the Proposal and Contract Documents; and current editions of the following:

- A. VDOT Road and Bridge Specifications 2020
- B. VDOT Road and Bridge Standards 2016, May 2020 Revision
- C. Virginia Work Area Protection Manual 2011, Revision 2
- D. VDOT Construction Manual
- E. VDOT Post-Construction Manual
- F. VDOT Construction Instructional and Informational Memoranda
- G. VDOT Inspection Manual
- H. VDOT Survey Manual
- I. VDOT Materials Approved Lists
- J. FHWA Manual on Uniform Traffic Devices (MUTCD), 11th Edition
- K. Virginia Supplement to the 2009 MUTCD, 2011 Edition
- L. Virginia Erosion and Sediment Control Handbook
- M. Virginia Stormwater Management Program

The word “Department” generally refers to the Virginia Department of Transportation but in some cases may also refer to the City.

The Contractor shall be considered the prime contractor under the terms of the Agreement. For clarity, the contractor shall be indicated as the "Contractor" throughout the remainder of this section. Contractor and subcontractor(s) shall meet all requirements for state and local registration and licensing commensurate with the value of their contract(s).

The Contractor or subcontractor is responsible for supplying all personnel, material, and equipment to prosecute the timely completion of the project.

2.1.1 General Conditions

The work consists of, but is not limited to, clearing and grubbing; regular excavation; removal of existing pavements; construction of fill areas and embankments; rock removal: undercut; disposal of unsuitable or surplus materials; preparation of roadway subgrade and related surface drainage; storm drainage systems; placement of aggregate base, curb and gutter and asphalt concrete paving materials; grading and stabilization of adjacent fill and excavation areas; placement and maintenance of erosion and sedimentation control measures; temporary and permanent seeding; landscaping; street lights; installation of traffic signalization equipment; and all incidental work necessary to complete the project in an acceptable manner, ready for use, occupancy, or operation by the City.

Contractor will be responsible for removing excess soil and rock from the site. Disposal of these materials must be hauled to a City approved location.

All material incorporated into fill must meet the minimum CBR of 6 and it cannot be assumed that material excavated on-site will meet this requirement. The Contractor may conduct explorations prior to bid submission.

2.1.1.1 Quality Control

The City will provide Quality Control (QC) for the project through testing and inspections; however, this does not relieve the contractor of responsibility for their own QC and delivery of a quality product. The contractor will be responsible for material certifications and load tickets. The Contractor should be aware that field inspections by City personnel, or their agents, will be applicable, including review of testing results and verification of tickets to assure compliance with mix designs and Specifications. Contractor must allow inspection staff access to work areas and such access shall be safe in accordance with VOSHA guidelines

Testing will be the responsibility of the City, except nuclear tests and cores will be handled by the Contractor for asphalt. The Contractor will be responsible for providing test areas as needed for quality performance.

2.1.1.2 Maintenance of Traffic

The Contractor shall provide all flaggers, signage, traffic control, and work zone safety measures for all scheduled work being performed beginning with the mobilization of the Contractor or subcontractor on the project. All phases of this project shall be executed in accordance with the current editions of the Manual on Uniform Traffic Control Devices (MUTCD), Virginia Supplement to the MUTCD, and the Virginia Work Area Protection Manual. The scope of this work shall include checking the work zone(s) several times daily and on weekends when traffic control devices are in the travel lanes or encroaching upon traffic travel way. Contractor shall provide a call number for Police Department use should problems develop in the work zone (s)

outside of normal working hours. The speed limit may be reduced to 25 MPH during the construction time frame for traffic control. Left turn lanes must be maintained.

At the close of each daily operation and prior to shutting down the job site for any weekend or holiday, the Contractor or subcontractor shall provide protection to ensure safety for motor vehicular and pedestrian traffic around and through the work zone.

All temporary traffic control for the project as required for work zones, including signal work, shall be covered in Bid Form 2.2 and per the approved traffic management plan. Please note that a modified traffic management plan prepared by the Contractor may be substituted with the prior written approval of the City Engineer. Additional traffic control as directed by the City Engineer will be paid for by the following set costs per pay item:

TMA:	\$22.00 /Hour
Group II:	\$ 1.00 /Day/Device
Flagger Service:	\$16.20 /Hour/Person
Pilot Vehicle:	\$23.00 /Hour
Arrow Board:	\$ 5.00 /Hour
Message Board:	\$15.00 /Hour
Construction Signs:	\$20.00 /SF

2.1.1.3 Coordination with Other Contractors:

The Contractor shall be responsible for coordinating with contractors of other active construction projects within the vicinity including the proposed detour and other possible adjacent projects. The Contractor is responsible for conducting joint meetings as needed with other contractors within the vicinity of the project. Coordination shall be handled in accordance with VDOT Specification **105.09-Cooperation among Contractors**. The contractor shall provide any coordination requests along with a two week look ahead for approval by the City Engineer. Any coordination or scheduling conflicts will be resolved by the City Engineer.

2.1.1.4 Miscellaneous:

Night and weekend work will be allowed; however, hours of work and schedule will require prior approval. Work shall be limited and conducted in accordance with VDOT Specification **108.02 Limitations of Operations**. Additionally, work cannot be performed during Bristol Race weekends and the Rhythm and Roots Festival.

The City will provide survey control and staking of rights-of-way prior to Contractor's mobilization. Control shall consist of a minimum of ten (10) points distributed throughout the project with each point having both horizontal and vertical data established. Thereafter, Contractor shall be responsible for stake out work for the project, including but not limited to centerline, right-of-way, slope, grade and monumentation.

This project will use the current VDOT Asphalt Index Pricing.

All pavement marking shall be installed per VDOT specifications. All pavement markings within public rights-of-way shall be Thermoplastic Type B, Class 1, Temporary pavement markings shall be Type F, Class 1 and pavement markings outside public right-of-way shall be VDOT standard paint pavement marking material Type A.

No burning will be allowed on the project.

GPS curbing machines will not be allowed on this project.

All chain link fencing shall be black vinyl coated and shall be constructed in accordance with the VDOT Road and Bridge Specifications, Sections 242 and 507.

This agreement includes all requirements contained in the invitation to bid and all attachments, (ROADWAY WIDENING AND IMPROVEMENTS OF: LEE HIGHWAY; NORTHBOUND AND SOUTHBOUND OFF-RAMPS AT INTERSTATE 81, EXIT 5; AND ISLAND ROAD and UPC NO. 105309).

2.1.2 Roadway, Storm Drainage and Utilities Construction

The Contractor will be required to notify, schedule, and coordinate with each utility company to ensure each company can perform relocations as needed without project delay.

Pursuant to the Virginia Underground Utility Damage Prevention Act, Contractor shall be responsible for contacting the local notification center prior to engaging in excavation or demolition activities within the project limits, including connections within existing improved rights-of-way.

2.1.2.1 Measurement and Payment - General

Measurement and payment shall be made in accordance with the current edition of the Virginia Road and Bridge Specifications and as may be further clarified hereafter.

The lump sum for Stormwater Management shall include all items associated with the Bio-Retention Ponds including but not limited to: all earthwork and grading, underdrains and cleanouts, geotextile fabric, #57 washed stone, #8 washed stone, soil media mix, shredded hardwood mulch, #1 coarse aggregate, sod, liner and a riser with trash rack. The Contractor shall provide an as-built survey verifying the volume and elevation of each component of the bio-retention systems. The bio-retention landscaping shall be paid separately excluding sod.

2.1.2.2 Open Cut for Utility Installation

Open cuts will be allowed for work within City rights-of-way where the road is to be resurfaced, if traffic flow is maintained. Installation of all utilities under roadways shall be performed in accordance with City requirements stipulated in Procedures for Backfilling of Utility Excavations in Public Right-of-Way. All temporary asphalt patching and the maintenance thereof will be considered incidental to the installation of the utility.

2.1.2.3 Landscaping and Open Space

Landscaping consistent with Lee Highway east of Blevins Blvd. to Alexis Dr. shall be installed within the road right-of-way. A landscaping plan based on the existing Lee Highway layout and the plant list in the Bid Form shall be provided to the City for review within 4-weeks of notice to proceed. All unpaved open space within the road right-of-way shall have minimum 6-inches of topsoil. All tree and shrub planting locations shall have a minimum 24-inch and 15-inch depth of top soil respectively. Landscape plan for the bio-retention ponds are provided with the plans.

2.1.2.4 Special Provision for Pipe Abandonment

All storm pipe to be abandoned shall be filled with flowable fill. Reference VDOT Road and Bridge Specification Section 249-Flowable Backfill.

Removal and/or backfill of existing storm drains includes the removal and/or backfill of storm structures. Storm structures to be backfilled must be removed to 36-inches below finish grade.

2.1.3 Work Schedule

A construction progress schedule to be submitted by the Contractor and shall be divided into separate phases to insure uninterrupted access to Lee Highway, connecting streets, and adjacent businesses. A description of recommended phasing is outlined in **2.1.3.2 Phasing**.

The contractor shall provide a project schedule according to VDOT Special Provision for CPM Progress Schedule for Category III Projects.

2.1.3.1 General

Within ten (10) days of Notice to Proceed, the Contractor shall submit a final, detailed work schedule for acceptance by the City. The schedule shall set forth the separate phases outlined in **2.1.3.2 Phasing**, the order of all work elements and the time required for completion of the items of work specified in the contract. Further, the schedule shall insure uninterrupted ingress and egress to each property adjacent to any portion of the work zone, including any properties as may be affected by the Contractor's activities.

The work schedule shall be duly executed by the Contractor after it has been accepted by the City. If conditions change that would require a change in the Contractor's operations, the Contractor shall submit a revised progress schedule that has been mutually agreed upon.

The review and acceptance by the City of the Contractor's work schedule shall in no way relieve the Contractor of his responsibility to complete the work within the contract time limit then in effect for the project.

2.1.3.2 Phasing Guidelines

Refer to Transportation Management Plans.

2.1.3.3 Times for Completion

Final Project Completion on or before **January 5th, 2026**. Final Project Completion is defined as completing all of the Work as detailed in the Plans and Specifications to the City's satisfaction for Final Acceptance, including, but not limited to, punch list, seeding, landscaping, and signal burn-in.

Substantial Completion on or before **December 5th, 2025**. Substantial Completion is defined as surface asphalt in place with final pavement markings, signals in full operation, bio-retention basin installation, all concrete work completed, and all landscaping complete.

The Contractor, in setting forth the schedule for the project, shall take into consideration normal conditions considered unfavorable for the prosecution of the work and shall place sufficient workers and equipment on the project to complete the work in accordance with the specified contract time limits. Consideration will not be given by the City to extensions of time attributable to normal weather conditions or conditions resulting from normal weather.

No request for an extension of time will be considered by the City that is based on any claim that the contract time limit as originally established was inadequate.

2.1.3.4 Liquidated Damages

Liquidated damages will be assessed for each day the project is not completed beyond the contract completion date. Liquidated damages will be assessed in accordance with VDOT Specification **108.06 Failure to Complete on Time**.

2.1.4 Insurance Requirements

The Contractor shall provide certificates of insurance for their firm and that of the subcontractor(s), which names the City, its officers, agents, and employees and the Virginia Department of Transportation, its officers, agents, and employees as the certificate holder and as *additional insureds*. This coverage shall be reflected on the Certificates of Insurance (including any endorsements and riders thereto) which will be provided to the City and to the Virginia Department

of Transportation. Each Certificate of Insurance shall require that notice be given, thirty (30) days prior to cancellation or material change in the policies, to the City. Coverage shall be not less than the following amounts:

General Liability

General Aggregate	\$1,000,000
Product Comp/OPS Aggregate	\$1,000,000
Personal and ADV Injury	\$1,000,000
Each Occurrence	\$1,000,000
Fire Damage (1 Fire)	\$50,000
Medical Expense (1 person)	\$5,000

Automobile Liability

Any Auto	\$1,000,000
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Excess Liability

Each Occurrence/Aggregate	\$1,000,000
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2.1.5 The Agreement

The project shall be subject to the terms of the Agreement (Contract), the form of which is attached hereto and to the content of this Invitation to Bid which is made a part of the Agreement by reference as though included verbatim.

When conflicts arise between state and local contract language and federal rules, the federal-aid or most conservative approach shall apply in the execution and administration of this contract.

2.1.6 Approximation of Quantities and Stability of Contract Price(s)

Bidder should be aware that the quantities listed for work and materials are approximate only and are subject to increase or decrease and, whether increased or decreased, the unit price(s) quoted are to remain valid throughout the term of the contract. It is incumbent upon the bidder to independently estimate quantities upon which the contract unit price(s) are based. No credit will be given nor any adjustment made to contract unit prices unless successful bidder can conclusively demonstrate that actual quantities vary more than twenty per cent (20%) from estimated quantities.

2.1.7 Bidding Instructions as to Method

Sealed bids for the above-referenced Lee Highway Widening – Phase 1B in conformity to plans for Capital Project No. 95735, will be received by the City at the Office of Procurement Specialist, City Hall, 300 Lee Street, Bristol, Virginia 24201-4327, until the time and date stated specified in **1.3 Closing Date and Time.**

No bids will be received or accepted after the above specified time and date for the opening of bids. Bids submitted after the designated hour will be deemed invalid and returned unopened.

Bids shall be accompanied by a cashier's or bank check or Bid Guarantee Bond in the amount of not less than five percent (5%) of the bid made payable to the City of Bristol, Virginia, Owner, and subject to the conditions provided in the Instruction to Bidders.

When City gives a Notice of Award to the successful bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached or referenced. Within five (5) days thereafter, Contractor shall sign and deliver the required number of counterparts of the Agreement and attached documents to the City with the required Bonds, Certificates of Insurance, and Power of Attorney. Within five (5) days thereafter, City shall deliver one (1) fully signed counterpart to Contractor. Each counterpart is to be accompanied by a complete set of the Drawings with appropriate identification.

The successful bidder will be required to furnish an acceptable Performance and Payment Bond in the amount of one hundred percent (100%) of the contract price, each bond.

Upon submission, no bidder may withdraw their proffer until the award of the contract. The contract must be awarded within 60 days of the opening of bids, as per the 2020 VDOT Road & Bridge Specifications.

All bidders must be able to acquire required contractor licensing to perform the type construction herein described prior to bid award as required by the statutes of the Commonwealth of Virginia and the City.

The City reserves the right to waive any irregularities or to reject any or all bids.

Contractor shall bid this project on a unit price basis, unless otherwise indicated.

All costs shall be indicated in writing and in figures. Should there be a discrepancy between the two; the written number shall be given precedence.

2.1.8 Employment Discrimination

Contractors must comply with the Code of Virginia, Section 2.2-4311 which prohibits discrimination in employment regarding race, religion, color, sex, national origin, age disability, or other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor.

The City of Bristol, VA in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

2.1.9 Drug-free Workplace

Contractors must comply with the Code of Virginia, Section 2.2-4312 which requires that 1) a drug-free workplace be provided, 2) a statement be posted to notify employees regarding prohibition against the unlawful manufacture, sale, distribution, dispensation, possession or use of a controlled substance or marijuana, 3) all employee solicitations include a statement that the contractor maintains a drug-free workplace, and 4) the foregoing be binding upon each subcontractor or vendor.

2.1.10 Immigration Laws

During the performance of this contract, the Contractor shall not knowingly employ an unauthorized alien as defined in the Federal Immigration Reform Act of 1986.

2.1.11 Anti-Lobbying Clause

Contractors that apply or bid for an award exceeding \$100,000 must file the required certification per the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). The contractor certifies that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award will be disclosed.

2.1.12 Contract Provisions for Non-Federal Entity Contracts Under Federal Awards

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

- A. Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.
- B. All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement.
- C. Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of “federally assisted construction contract” in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, “Equal Employment Opportunity” (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,”

and implementing regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”

- D. Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, “Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction”). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland “Anti-Kickback” Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.
- E. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
- F. Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of “funding agreement” under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under

Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

- G. Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).
- H. Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.
- I. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.
- J. See § 200.323.
- K. See § 200.216.
- L. See § 200.322.

2.1.13 Virginia Public Procurement Act, section 2.2-4309

Any contract modification that results in an increase of more than twenty-five percent must be approved by advanced written approval by the governor or his specified designee. In no event may the amount of any contract, without adequate consideration, be increased for any purpose, including, but not limited to, relief of an offeror from the consequences of an error in its bid or offer.

2.1.14 Submission and Disposition of Claims

A. Notice of Intent to File a Claim

Early or prior knowledge by the City of an existing or impending claim for damages could alter the plans, scheduling, result in mitigation or elimination of the basis for the claim.

Therefore, the Contractor shall submit a written statement describing the act of omission or commission by the City or its agents that allegedly caused damage to the Contractor and the nature of the claimed damage to the City Engineer at the time of each and every occurrence that the Contractor believes to be the basis of a claim or prior to the beginning of the work upon which a claim and any subsequent action will be based. “Occurrence” includes but is not limited to the City Engineer’s denial of the Contractor’s timely request for time extension, additional compensation, change order, adjustment, or other request under the Contract, or any other decision, instruction, directive, or order that the Contractor believes will result in a claim. The written statement shall clearly inform the City that it is a “notice of intent to file a claim.” If such damage is deemed certain in the opinion of the Contractor to result from his acting on an order from the City Engineer, he shall immediately take written exception to the order. Submission of a notice of intent to file a claim as specified shall be mandatory. Failure to submit such notice of intent shall be a conclusive waiver to such claim for damages by the Contractor. An oral notice or statement will not be sufficient nor will a notice or statement after the event. Oral statements recorded in meeting minutes also will not be sufficient.

In addition, at the time of each and every occurrence that the Contractor believes to be the basis of a claim or prior to beginning the work upon which a claim and any subsequent action will be based, the Contractor shall furnish the City Engineer an itemized list of materials, equipment, and labor for which additional compensation will be claimed. Only actual cost for materials, labor and equipment will be considered. The Contractor shall afford the City Engineer every facility for keeping an actual cost record of the work. The Contractor and the City Engineer shall compare records and bring them into agreement at the end of each day. Failure on the part of the Contractor to afford the City Engineer proper facilities for keeping a record of actual costs will constitute a waiver of a claim for such extra compensation except to the extent that it is substantiated by the City’s records. The filing of such notice of intent by the Contractor and the keeping of cost records by the City Engineer shall in no way establish the validity of a claim.

B. Time for Submittal of Claim

Upon completion or termination of the Contract, the Contractor may, within 60 days after the final estimate date established by the City pursuant to Code of Virginia § 33.2-1101, deliver to the City Engineer a certified written claim, which must be a signed original claim document, along with an electronic copy of the claim document as a Portable Document Format (PDF) file, for the amount he deems he is entitled to under the Contract. For the purpose of this Section, the final estimate date shall be that date set forth in a letter from the City to the Contractor sent by certified mail and shall be considered as the date of notification of the City’s final estimate. Regardless of the manner of delivery of the claim, the City Engineer must receive and have physical possession of the Contractor’s written claim within the 60-day period that commences with the final estimate date. Submittals received by the City Engineer either before the final estimate date or after the 60-day period shall not have standing as a claim.

C. Content of Claim

The Contractor's certified written claim shall set forth in detail the facts upon which the claim is based, including but not limited to the following:

1. A detailed statement of the facts upon which the claim is based providing items of work affected and included in each claim, and the date(s) on which actions or events resulting in the claim occurred or conditions resulting in the claim became evident; and
2. All pertinent data, documents, and correspondence that may substantiate the claim. The City shall have the right, at its expense, to review and copy all of the Contractor's non-privileged project files and documents, both electronic and paper, for use in analyzing the claim; and
3. Identification of the provisions of the Contract that the City allegedly breached, and the acts or omissions constituting such breach.
4. A detailed statement of the amount of the actual cost for materials, labor and equipment sought in the claim.
5. A copy of the notice(s) of intent to file a claim that the Contractor submitted to the City Engineer for the claim(s).

D. Certification of Claim

The Contractor shall submit with the claim a written certification of the claim in the following form: Pursuant to the Code of Virginia, I hereby certify that this Contract claim submission for City of Bristol Virginia Project No. _____ in City of Bristol, Virginia, is a true and accurate representation of additional costs, expenses, damages and/or delays incurred by _____ (Contractor) or its subcontractors or suppliers in the performance of the required Contract work. Any statements, representations, writings, or documents, made or used and known to be false, shall be considered a violation of the Virginia Governmental Frauds Act, punishable as allowed by the Code of Virginia for a Class 6 Felony, and shall be considered a violation of the Virginia Fraud Against Taxpayers Act, subject to the civil penalties allowed by the Code of Virginia.

_____(Contractor)

By: _____

As officer or duly appointed agent of _____(Contractor)

Title: _____

Date: _____

State Of: _____

City/County of _____, To-Wit:

I, the undersigned, a Notary Public in and for the City/County and State aforesaid, do hereby certify that _____, whose name is signed to the foregoing instrument, bearing date of the _____ day of _____, 20____, has this day acknowledged the same before me in my City/County and State aforesaid.

Given under my hand this _____ day of _____, 20__.

Notary Public: _____

Notary Registration No.: _____

My commission expires: _____

Claims submitted by the Contractor for itself or its subcontractors or suppliers during the statutory period for submitting Contract claims that are submitted without the Contractor's certification described above shall not have standing as a claim and shall not be considered by the Department.

E. Review of Claim

Within 90 days from the receipt of the claim, the City will make an investigation and notify the Contractor by certified mail of its decision. However, by mutual agreement, the City and Contractor may extend the 90-day period for another 30 days. If the Contractor is dissatisfied with the City's decision, within 30 days from receipt of the decision the Contractor shall notify the City Manager in writing that it desires to appear before the City Manager, whether in person or through counsel, and present additional facts and arguments in support of its claim. The City Manager will schedule and meet with the Contractor within 30 days after receiving the request. However, the City Manager and Contractor, by mutual agreement, may schedule the meeting to be held after 30 days but before the 60th day from the receipt of the Contractor's written request. Within 45 days from the date of the meeting, the City Manager will investigate the claim, including the additional facts presented, and notify the Contractor in writing of his decision. However, the City Manager and Contractor, by mutual agreement, may extend the 45-day period for another 30 days. If the City Manager deems that all or any portion of a claim is valid, he shall have the authority to negotiate a settlement with the Contractor subject to any approvals required by the Code of Virginia. 105.19 63 Any monies that become payable as the result of claim settlement after payment of the final estimate will not be subject to payment of interest unless such payment is specified as a condition of the claim settlement.

F. Compensation for Claims

The City Engineer will determine time extension according to Road and Bridge Specifications 108.04 and compensation according to 109.05 if the City concludes that the Contractor has established entitlement to compensation or a time extension for the claim.

2.2 BID FORM
REVISED 12/15/2023

Lee Highway Widening Phase 1B
 Capital Project No.95735 - UPC 105309

LINE NO.	ITEM NO.	SPEC DES.	ITEM DESCRIPTION	CONTRACT QTY AND UM		UNIT PRICE	TOTAL PRICE
0010	00100	513SD20-0001	MOBILIZATION	1	LS		
0020	00101	517SD20-0001	CONSTRUCTION SURVEYING CONSTRUCTION	1	LS		
0030	00111	301SD20-0002	CLEARING AND GRUBBING	3	ACRE		
0040	00120	303SD20-0001	REGULAR EXCAVATION	11,000	CY		
0050	00140	305SD20-0001	BORROW EXCAVATION	3,000	CY		
0060	00124	303SX20-0005	ROCK EXCAVATION	500	CY		
0070	00162	303SX20-0010	NS ACCESS ROAD (CONSTRUCTION ENTRANCE)	3	EA		
0080	00355	305SD20-0009	GEOTEXTILE SUBGRADE STABILIZATION	1,000	SY		
0090	00507	302SD20-0002	BEDDING MATL. AGGR. NO. 57	250	TON		
0100	00525	504SD20-0001	CONCRETE CLASS A3 MISC.	2	CY		
0110	00529	509SD20-0001	FLOWABLE BACKFILL	96	CY		
0120	00580	501SD20-0001	UNDERDRAIN UD-1	90	LF		
0130	00585	501SD20-0002	UNDERDRAIN UD-2	30	LF		
0140	01152	302SD20-0025	15" CONC. PIPE	317	LF		
0150	01182	302SD20-0030	18" CONC. PIPE	492	LF		
0160	01242	302SD20-0039	24" CONC. PIPE	266	LF		
0170	06818	302SD20-0312	DROP INLET DI-3B,L=6'	7	EA		
0180	06819	302SD20-0313	DROP INLET DI-3B,L=8'	2	EA		
0190	06821	302SD20-0315	DROP INLET DI-3B,L=12'	2	EA		
0200	06835	302SD20-0329	DROP INLET DI-3C,L=6'	3	EA		
0210	07508	302SD20-0447	DROP INLET DI-7	2	EA		
0220	09056	302SD20-0662	MANHOLE MH-1 OR 2	18	LF		
0230	09057	302SD20-0663	FRAME & COVER MH-1	3	EA		
0240	09150	414SD20-0003	EROSION CONTROL STONE CLASS I, EC-1	150	TON		
0250	10065	308SD20-0001	AGGR. MATL. NO. 1	1,050	TON		
0260	10128	308SD20-0012	AGGR. BASE MATL. TY. I NO. 21B	3,200	TON		
0270	10608	315SD20-0002	ASPHALT CONCRETE TY. SM-12.5D	980	TON		
0280	10609	315SD20-0003	ASPHALT CONCRETE TY. SM-12.5E	375	TON		
0290	10610	315SD20-0004	ASPHALT CONCRETE TY. IM-19.0A	851	TON		
0300	10628	515SD20-0004	FLEXIBLE PAVEMENT PLANING 0" - 2"	7,528	SY		
0310	10642	315SD20-0010	ASPHALT CONCRETE TY. BM-25.0A	3,450	TON		
0320	10771	316SD20-0004	PLAIN HYDR. CEM.CONC. PAVE. 7"	100	SY		

2.2 BID FORM
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Lee Highway Widening Phase 1B
 Capital Project No.95735 - UPC 105309

LINE NO.	ITEM NO.	SPEC DES.	ITEM DESCRIPTION	CONTRACT QTY AND UM		UNIT PRICE	TOTAL PRICE
0330	12020	502SD20-0011	STD. CURB CG-2	165	LF		
0340	12600	502SD20-0022	STD. COMB. CURB & GUTTER CG-6	2,726	LF		
0350	12700	502SD20-0024	STD. COMB. CURB & GUTTER CG-7	539	LF		
0360	13108	504SD20-0002	CG-12 DETECTABLE WARNING SURFACE	16	SY		
0370	13114	502SD20-0031	ENTRANCE GUTTER CG-13	104	SY		
0380	13220	504SD20-0003	HYDRAULIC CEMENT CONC. SIDEWALK 4"	671	SY		
0390	13280	505SD20-0011	GUARDRAIL GR-MGS1	947	LF		
0400	13287	505SD20-0018	GUARDRAIL END ANCHORAGE GR-MGS3	2	EA		
0410	13288	505SD20-0019	GUARDRAIL HEIGHT TRANSITION GR-MGS4	2	EA		
0420	13392	505SD20-0053	FIXED OBJECT ATTACH. GR-FOA-2 TY. I	2	EA		
0430	13603	505SP20-0001	IMPACT ATTEN. TY. 1 TL-3, LOW MAINTENANCE	2	EA		
0440	21020	502SD20-0053	MEDIAN STRIP MS-1	172	SY		
0450	22511	507SD20-0002	FENCE FE-W2	270	LF		
0460	22643	507SD20-0005	FENCE FE-CL	572	LF		
0470	22675	507SD20-0012	GATE FE-CL L=10'	1	EA		
0480	24152	512SD20-0013	TYPE 3 BARRICADE 8'	2	EA		
0490	24160	512SD20-0014	TEMPORARY (CONSTRUCTION) SIGN	1,085	SF		
0500	24260	512SD20-0015	CR. RUN AGGR. NO. 25 OR 26	590	TON		
0510	24272	512SD20-0023	TRUCK MOUNTED ATTENUATOR	150	HR		
0520	24278	512SD20-0024	GROUP 2 CHANNELIZING DEVICES	69,730	DAY		
0530	24279	512SD20-0025	PORTABLE CHANGEABLE MESSAGE SIGN	7,080	HR		
0540	24281	512SD20-0026	ELECTRONIC ARROW BOARD	11,800	HR		
0550	24282	512SD20-0027	FLAGGER SERVICE	1,400	HR		
0560	24290	512SD20-0031	TRAFFIC BARRIER SERVICE CONC. MB-7D PC	1,300	LF		
0570	24410	508SD20-0002	DEMOLITION OF PAVEMENT COMBINATION	609	SY		
0580	24501	510SX20-0039	NS REMOVE EXIST. PIPE	207	LF		
0590	24502	510SX20-0040	REMOVE EXIST. SIGN	2	EA		
0600	24505	510SX20-0042	RELOCATE EXIST. SIGN	33	EA		
0610	24505	510SX20-0042	RELOCATE EXIST. MAILBOX	1	EA		
0620	24810	510SX20-0029	NS RESET EXIST.	1	EA		
0630	24831	510SX20-0033	NS ADJUST EXIST. DROP INLET	1	EA		
0640	25506	514SD20-0002	FIELD OFFICE TY.II	18	MO		

2.2 BID FORM
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Lee Highway Widening Phase 1B
 Capital Project No.95735 - UPC 105309

LINE NO.	ITEM NO.	SPEC DES.	ITEM DESCRIPTION	CONTRACT QTY AND UM		UNIT PRICE	TOTAL PRICE
0650	25565	108SP20-0001	PROGRESS SCHEDULE BASELINE	1	LS		
0660	25567	108SP20-0002	PROGRESS SCHEDULE UPDATES	18	EA		
0670	26117	414SD20-0008	DRY RIPRAP CL. AI	38	TON		
0680	26119	414SD20-0010	DRY RIPRAP CL.I 18"	489	TON		
0690	26127	414SD20-0012	DRY RIPRAP CL.I 26"	265	TON		
0700	27023	602SD20-0004	TOPSOIL CLASS B 6"	1,700	CY		
0710	27101	603SD20-0002	TEMPORARY SEED	200	LB		
0720	27102	603SD20-0003	REGULAR SEED	350	LB		
0730	27216	603SX20-0001	FERTILIZER 15-30-15	3,000	LB		
0740	27250	603SD20-0017	LIME	6	TON		
0750	27318	606SD20-0001	ROLLED EROSION CTRL PRODUCT EC-2 TYPE 1	6,500	SY		
0760	27410	303SD20-0022	CHECK DAM, ROCK TY. I	10	EA		
0770	27451	303SD20-0030	INLET PROTECTION TYPE A	29	EA		
0780	27505	303SD20-0034	TEMP. SILT FENCE TYPE A	2,000	LF		
0790	28810	605SD20-0002	MULCHING	33	CY		
0800	38950	605SX20-0010	EASTERN WILLOW OAK - 3"	3	EA		
0810	38950	605SX20-0010	SWEET BAY MAGNOLIA - 8'-10'	5	EA		
0820	38950	605SX20-0010	BOXWOOD 'AMERICAN' - #3	14	EA		
0830	38950	605SX20-0010	EASTERN CHOKEBERRY - #3	23	EA		
0840	38950	605SX20-0010	ILEX VERTICILLATA (WINTERBERRY) #3	53	EA		
0850	38950	605SX20-0010	BOXWOOD 'GREEN BEAUTY' - #3	56	EA		
0860	38950	605SX20-0010	ITEA VIRGINICA (VIRGINIA SWEETSPIRE) #3	68	EA		
0870	38950	605SX20-0010	ILEX GLABRA (INKBERRY) #3	75	EA		
0880	38950	605SX20-0010	EUPATORIUM PURPUREUM (SWEET JOE PYE WEED) #1	100	EA		
0890	38950	605SX20-0010	PRAIRE DROP SEED - QT	200	EA		
0900	42764	520SD20-0274	MANHOLE FRAME & COVER F&C-1	4	EA		
0910	50108	701SD20-0001	SIGN PANEL	120	SF		
0920	51030	703SD20-0003	LOCAL CONTROLLER, TY. A	2	EA		
0930	51198	703SD20-0011	PEDESTRIAN ACTUATION PA-2	3	EA		
0940	51200	703SD20-0013	PEDESTRIAN ACTUATION PA-4	1	EA		
0950	51210	700SD20-0066	PEDESTAL POLE PF-2 10'	1	EA		
0960	51238	700SD20-0068	CONCRETE FOUNDATION SIGNAL POLE PF-8	33	CY		

2.2 BID FORM
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Lee Highway Widening Phase 1B
 Capital Project No.95735 - UPC 105309

LINE NO.	ITEM NO.	SPEC DES.	ITEM DESCRIPTION	CONTRACT QTY AND UM		UNIT PRICE	TOTAL PRICE
0970	51240	700SD20-0069	CONCRETE FOUNDATION PF-2	2	EA		
0980	51426	700SX20-0025	NS MAST ARM	5	EA		
0990	51480	700SD20-0095	SIGNAL MAST ARM POLE MP-3, TYPE E1	2	EA		
1000	51482	700SD20-0097	SIGNAL MAST ARM POLE MP-3, TYPE F	3	EA		
1010	51486	700SD20-0099	MAST ARM 40'	1	EA		
1020	51487	700SD20-0100	MAST ARM 49'	2	EA		
1030	51488	700SD20-0101	MAST ARM 60'	3	EA		
1040	51490	700SD20-0103	MAST ARM 70'	2	EA		
1050	51507	703SD20-0014	VIDEO DETECTION CAMERA	8	EA		
1060	51508	703SD20-0015	VIDEO DETECTION CABLE	1,815	LF		
1070	51525	703SD20-0024	EVP DETECTOR CABLE	108	LF		
1080	51540	703SD20-0026	LOOP DETECTOR AMPLIFIER	2	EA		
1090	51598	700SD20-0108	8/3 CONDUCTOR CABLE	964	LF		
1100	51600	700SD20-0110	14/2 CONDUCTOR CABLE	540	LF		
1110	51602	700SD20-0112	14/4 CONDUCTOR CABLE	3,635	LF		
1120	51607	700SD20-0114	14/7 CONDUCTOR CABLE	1,565	LF		
1130	51615	700SD20-0118	14/1 ENCLOSED COND. CABLE	2,440	LF		
1140	51912	703SD20-0042	LOOP SAW CUT 3/8"	130	LF		
1150	51933	703SD20-0044	REMOVE EXISTING POLE	7	EA		
1160	51934	703SD20-0045	REMOVE EXISTING FOUNDATION	8	EA		
1170	51935	703SD20-0046	REMOVE EXISTING SIGNAL HEAD	7	EA		
1180	51936	703SD20-0047	REMOVE EXISTING CONTROLLER	2	EA		
1190	51955	512SX20-0050	NS TEMPORARY TRAFFIC CONTROL SIGNAL	1	LS		
1200	51993	703SD20-0052	UNINTERRUPTIBLE POWER SUPPLY TYPE 1	2	EA		
1210	51995	703SD20-0054	UNINTERRUPTIBLE POWER SUPPLY BATTERY PACK	2	EA		
1220	51996	703SD20-0055	UNINTERRUPTIBLE POWER SUPPLY CABINET ATTACHED	2	EA		
1230	52002	700SX20-0010	TRAFFIC SIGNALIZATION EVP DETECTION SYSTEM INFRARED (3 WAY)	1	EA		
1240	52002	700SX20-0010	TRAFFIC SIGNALIZATION EVP DETECTION SYSTEM INFRARED (4 WAY)	2	EA		
1250	52403	703SD20-0060	PEDESTRIAN SIGNAL HEAD SP-8 (W/MOUNTING ASSY)	4	EA		
1260	52424	700SD20-0132	ELECTRICAL SERVICE SE-3 TYPE A	1	EA		
1270	54032	704SD20-0006	TYPE B CLASS I PVMT LINE MRKG 4"	5,125	LF		
1280	54034	704SD20-0007	TYPE B CLASS I PVMT LINE MRKG 6"	5,963	LF		

2.2 BID FORM
REVISED 12/15/2023

Lee Highway Widening Phase 1B
 Capital Project No.95735 - UPC 105309

LINE NO.	ITEM NO.	SPEC DES.	ITEM DESCRIPTION	CONTRACT QTY AND UM		UNIT PRICE	TOTAL PRICE
1290	54037	704SD20-0008	TYPE B CLASS I PVMT LINE MRKG 8"	3,645	LF		
1300	54040	704SD20-0009	TYPE B CLASS I PVMT LINE MRKG 12"	180	LF		
1310	54042	704SD20-0010	TYPE B CLASS I PAVE. LINE MARKING 24"	533	LF		
1320	54105	512SD20-0042	ERADICATE EXIST. LINEAR PVMT MARKING	4,700	LF		
1330	54106	512SD20-0043	ERADICATE EXIST. NONLINEAR PVMT MRKG	240	SF		
1340	54428	512SD20-0046	TEMP. PVMT MRKG, TY. A, 4"	9,334	LF		
1350	54440	512SD20-0050	TEMP. PVMT MRKG, TY. A, 24"	200	LF		
1360	54443	512SD20-0051	TEMP. PVMT SYMBOL MRKG THRU ARROW TY. A	4	EA		
1370	54457	512SD20-0052	TEMP. PVMT SYMBOL MRKG SINGLE TURN ARROW TY. A	6	EA		
1380	54542	512SD20-0061	TYPE D, CLASS II TEMP. PVMT MRKG 4"	400	LF		
1390	54571	704SD20-0044	PVMT SYMB MRKG THRU ARROW TY B, CL I	12	EA		
1400	54574	704SD20-0047	PVMT SYMB MRKG SGL TURN ARROW TY B, CL I	29	EA		
1410	54577	704SD20-0050	PVMT SYMB MRKG DBL TURN ARROW THRU/LT OR RT TY B, CL I	14	EA		
1420	54585	704SD20-0056	PVMT SYMB MRKG DBL TURN ARROW, LT/RT TY B, CL I	1	EA		
1430	55140	700SD20-0149	CONCRETE FOUNDATION LF-1 TY. A	3	EA		
1440	55158	700SD20-0218	LIGHTING POLE LP-1 30'-8'	4	EA		
1450	55179	700SX20-0030	NS LUMINAIRE ARM 18'	9	EA		
1460	55343	700SD20-0168	ELECT. SERVICE SE-6	1	EA		
1470	55345	700SD20-0169	ELECT. SERVICE SE-7	1	EA		
1480	55350	705SD20-0001	CONTROLLER CABINET W/FOUNDATION	2	EA		
1490	55385	700SD20-0174	ELECTRICAL SERVICE WORK PAD	2	EA		
1500	55586	700SD20-0177	JUNCTION BOX JB-S1	2	EA		
1510	55587	700SD20-0178	JUNCTION BOX JB-S2	12	EA		
1520	55588	700SD20-0179	JUNCTION BOX JB-S3	3	EA		
1530	56051	700SD20-0192	BORED CONDUIT 3"	1,940	LF		
1540	56053	700SD20-0194	2" PVC CONDUIT	3,421	LF		
1550	56054	700SD20-0195	3" PVC CONDUIT	70	LF		
1560	56205	700SD20-0199	TEST BORE	5	EA		
1570	57200	808SD20-0001	FIBER OPTIC CABLE 24 STRAND	500	LF		
1580	57204	808SD20-0005	PRE-TERMINATED FIBER PATCH PANEL	2	EA		
1590	59000	705SX20-0002	LED LIGHTING MIN 18000 LUMEN, 3000 K, BUG B3-U0-G3	9	EA		
1600	64036	401SD20-0005	PIPE UNDERDRAIN 6"	182	LF		

2.2 BID FORM
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Lee Highway Widening Phase 1B
 Capital Project No.95735 - UPC 105309

LINE NO.	ITEM NO.	SPEC DES.	ITEM DESCRIPTION	CONTRACT QTY AND UM		UNIT PRICE	TOTAL PRICE
1610	70000	516SX20-0008	NS DEMO. OF BLDG. (D-1,D-2 SIGNS)	2	LS		
1620	70000	516SX20-0008	NS DEMO. OF BLDG. (D-901, D-902,D- 903) LIGHT POLE	3	LS		
1630	70000	516SX20-0008	NS DEMO. OF BLDG. (D-904) AIR/VACUUM SERVICE CENTER	1	LS		
1640	70000	516SX20-0008	NS DEMO. OF BLDG. (D-904) AIR/VACUUM SERVICE CENTER	1	LS		

BID FORM TOTAL							
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2.2 Bid Form (Continued)

BID GUARANTY

The undersigned bidder submits herewith bid guaranty in an amount of not less than five percent (5%) of the total amount of the proposal offered and agrees and consents that the bid guaranty shall be forfeited to the City as liquidated damages if the required contract bond is not executed within fifteen (15) days from the date of the notice of award and work has not been started as required. The following documents are attached to and made a condition of this bid and constitute required Bid Security:

_____ Certified Check or Bank Check
_____ Bid Bond

BID AMOUNT: _____ \$ _____

BIDDER: _____

PERSON PREPARING BID: _____

TELEPHONE NUMBER: _____ (_____) _____

ADDRESS: _____

Submittal of signed BID Form signifies understanding and acceptance of all stated terms and conditions and acknowledgment of requirement of compliance with all applicable local, state, and federal ordinances, laws, rules, and regulations whether expressly stated herein or not.

SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____

COMPANY: _____

DATE: _____

END OF SECTION

Lee Highway Widening – Phase 1B
Capital Project No. 95735 - UPC No. 105309
Invitation to Bid

ATTACHMENTS

ATTACHMENT - 1

**FHWA REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature*. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification*. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention*. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents*. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements*. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures*. Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay*. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits*. Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio*. The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates*. Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity*. The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

ATTACHMENT - 2

**VDOT
SUPPLEMENTAL SPECIFICATIONS (SSs),
SPECIAL PROVISIONS (SPs) AND
SPECIAL PROVISION COPIED NOTES (SPCNs)**

**VDOT SUPPLEMENTAL SPECIFICATIONS (SSs),
SPECIAL PROVISIONS (SPs) AND SPECIAL PROVISION COPIED NOTES
(SPCNs)**

Where Virginia Department of Transportation (VDOT) Supplemental Specifications, Special Provisions and Special Provision Copied Notes are used in this contract, the references therein to “the Specifications” shall refer to the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2020 and the Supplement thereto, dated 2022. References to the “Road and Bridge Standards” shall refer to the *Virginia Department of Transportation Road and Bridge Standards*, dated 2016 with revisions issued online as of the advertisement date for this project incorporated. References to the “Virginia Work Area Protection Manual” shall refer to the 2011 edition of the *Virginia Work Area Protection Manual with Revision Number 2.1* incorporated, dated November 1, 2020. References to the “MUTCD” shall refer to the 2009 edition of the *MUTCD with Revision Numbers 1 and 2* incorporated, dated May 2012; and the 2011 edition of the *Virginia Supplement to the MUTCD with Revision Number 1* dated September 30, 2013.

Where the terms “Department”, “Engineer”, “Contract Engineer”, “Construction Engineer”, Materials “Engineer”, and “Operations Engineer” appear in VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes used in this contract and the VDOT publications that each references, the authority identified shall be according to the definitions in Section 101.02 of the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2020. Authority identified otherwise for this particular project will be stated elsewhere in this contract.

VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes used in this contract and the VDOT publications that each reference are intended to be complementary to the each other. In case of a discrepancy, the order of priority stated in Section 105.12 of the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2020 shall apply.

VDOT Special Provision Copied Notes in this contract are designated with “(SPCN)” after the date of each document. VDOT Supplemental Specifications and Special Provision Copied Notes in this contract are designated as such above the title of each document.

The information at the top and left of each VDOT Special Provision Copied Note in this contract is file reference information for VDOT use only. The information in the upper left corner above the title of each VDOT Supplemental Specification and VDOT Special Provision in this contract is file reference information for VDOT use only.

7-1-22 (SPCN)

ATTACHMENT - 3

DRUG-FREE WORKPLACE

DRUG-FREE WORKPLACE– The Contractor shall:

- Provide a Drug-Free Workplace for the Contractor's employees.
- Post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- State in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a Drug-Free Workplace.
- Include the provisions of the foregoing clauses in every Subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each Subcontractor or vendor.

For the purposes of this provision, "Drug-Free Workplace" means a site for the performance of work done in connection with the Contract. The Contractor's employees, and those of his Subcontractors, shall be prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession, or use of any controlled substance or marijuana during the performance of the Work.

7-3-19 (SPCN)

ATTACHMENT - 4

CONTRACTOR SEXUAL HARASSMENT POLICY

CONTRACTOR SEXUAL HARASSMENT POLICY – If the contractor employs more than five employees, the contractor shall (i) provide annual training on the contractor's sexual harassment policy to all supervisors and employees providing services in the Commonwealth, except such supervisors or employees that are required to complete sexual harassment training provided by the Department of Human Resource Management, and (ii) post the contractor's sexual harassment policy in (a) a conspicuous public place in each building located in the Commonwealth that the contractor owns or leases for business purposes and (b) the contractor's employee handbook.

The contractor shall include the above paragraph in every subcontract or purchase order over \$10,000, so that this requirement shall be binding upon each subcontractor or vendor.

6-5-20 (SPCN)

ATTACHMENT - 5

PREDETERMINED MINIMUM WAGE RATES

[SP0F0-000100-00](#)

Reissued July 12, 2016

PREDETERMINED MINIMUM WAGE RATES

U.S. DEPARTMENT OF LABOR
OFFICE OF THE SECRETARY
WASHINGTON
DECISION OF THE SECRETARY

This case is before the Department of Labor pursuant to a request for a wage predetermination as required by law applicable to the work described.

A study has been made of wage conditions in the locality and based on information available to the Department of Labor the wage rates and fringe payments listed are hereby determined by the Secretary of Labor as prevailing for the described classes for labor in accordance with applicable law.

This wage determination decision and any modifications thereof during the period prior to the stated expiration date shall be made a part of every contract for performance of the described work as provided by applicable law and regulations of the Secretary of Labor, and the wage rates and fringe payments contained in this decision, including modifications, shall be the minimums to be paid under any such contract and subcontractors on the work.

The Contracting Officer shall require that any class of laborers and mechanics which is not listed in the wage determination and which is to be employed under the Contract, shall be classified or reclassified conformably to the wage determination, and a report of the action taken shall be sent by the Federal agency to the Secretary of Labor. In the event the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers and mechanics to be used, the question accompanied by the recommendation of the Contracting Officer shall be referred to the Secretary for determination.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U.S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the Contractor shall submit evidence of approval and registration by the U.S. Bureau of Apprenticeship and Training.

The Contractor shall submit to the Contracting Officer written evidence of the established apprentice-journeyman ratios and wage in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

Fringe payments include medical and hospital care, compensation for injuries or illness resulting from occupational activity, unemployment benefits, life insurance, disability and sickness insurance, accident insurance (all designated as health and welfare), pensions, vacation and holiday pay, apprenticeship or other similar programs and other bona fide fringe benefits.

By direction of the Secretary of Labor

A handwritten signature in black ink, appearing to read "E. Irving Manger". The signature is written in a cursive, flowing style with some loops and flourishes.

E. Irving Manger, Associate Administrator
Division of Wage Determinations
Wage and Labor Standards Administration

"General Decision Number: VA20240194 01/05/2024

Superseded General Decision Number: VA20230194

State: Virginia

Construction Type: Highway

Counties: Bristol* and Washington Counties in Virginia.

*including the independent city of Bristol

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number Publication Date
0 01/05/2024

ELEC0080-011 12/01/2021

	Rates	Fringes
ELECTRICIAN, Includes Traffic Signalization.....	\$ 30.55	11.51

SUVA2016-079 07/02/2018

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 17.65	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 19.94	0.00
INSTALLER - GUARDRAIL.....	\$ 24.00	0.00
IRONWORKER, REINFORCING.....	\$ 22.71	0.00
IRONWORKER, STRUCTURAL.....	\$ 27.38	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 15.40 **	0.00
LABORER: Common or General.....	\$ 15.15 **	0.00
LABORER: Grade Checker.....	\$ 15.07 **	0.00
LABORER: Pipelayer.....	\$ 13.19 **	0.00
LABORER: Power Tool Operator....	\$ 15.69 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 14.97 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 19.16	4.45
OPERATOR: Broom/Sweeper.....	\$ 14.32 **	0.25
OPERATOR: Crane.....	\$ 25.82	0.00
OPERATOR: Drill.....	\$ 24.66	0.00
OPERATOR: Gradall.....	\$ 18.65	0.00
OPERATOR: Grader/Blade.....	\$ 26.13	0.00
OPERATOR: Hydroseeder.....	\$ 16.64 **	0.00
OPERATOR: Loader.....	\$ 18.39	0.00
OPERATOR: Mechanic.....	\$ 20.60	0.00
OPERATOR: Milling Machine.....	\$ 23.12	3.60
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 16.92 **	0.00

OPERATOR: Piledriver.....	\$ 21.83	4.08
OPERATOR: Roller.....	\$ 15.53 **	0.00
OPERATOR: Screed.....	\$ 22.13	4.89
OPERATOR: Asphalt Spreader and Distributor.....	\$ 16.51 **	0.00
OPERATOR: Bulldozer, Including Utility.....	\$ 15.98 **	0.00
PAVEMENT MARKING OPERATOR.....	\$ 20.00	0.00
TRAFFIC CONTROL: Flagger.....	\$ 12.96 **	0.00
TRUCK DRIVER : HEAVY 7CY & UNDER.....	\$ 15.36 **	0.00
TRUCK DRIVER: Fuel and Lubricant Service.....	\$ 18.25	0.00
TRUCK DRIVER: HEAVY OVER 7 CY.....	\$ 16.60 **	0.00
TRUCK DRIVER: Single & Multi Axle.....	\$ 16.12 **	0.00

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher
minimum wage under Executive Order 14026 (\$17.20) or 13658
(\$12.90). Please see the Note at the top of the wage
determination for more information. Please also note that the
minimum wage requirements of Executive Order 14026 are not
currently being enforced as to any contract or subcontract to
which the states of Texas, Louisiana, or Mississippi, including
their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at
<https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses

(29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date

for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

ATTACHMENT - 6

VDOT SPECIAL PROVISIONS

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
PREVAILING WAGE RATES

November 3, 2021

SECTION 107 – LEGAL RESPONSIBILITIES of the Specifications is amended as follows:

Section 107.13 – Labor and Wages is amended as follows:

Section 107.13(a) Predetermined Minimum Wages is replaced with the following:

- (a) **Prevailing Wage Rates:** The provisions of federal and state laws requiring the payment of a prevailing minimum wage rate are incorporated in and expressly made a part of this Contract. The Contractor and the Contractor's subcontractors shall promptly comply with all such applicable provisions, as well as the following.
1. If the Contractor needs a job classification not listed in the wage determination to submit a bid or comply with this provision, the Contractor shall submit to the Department a completed Additional Classification and Wage Rate Request using Form C-51. If other or additional classifications are used, omission of classifications shall not be cause for additional compensation to the Contractor. The Contractor shall be responsible for determining local practices with regard to the application of the various labor classifications.
 2. Upon the award of the Contract, the Contractor shall certify, under oath, to the Commissioner of the Virginia Department of Labor and Industry (VDOLI) the pay scale for each craft or trade employed on the project to be used by the Contractor and any of the Contractor's subcontractors for work to be performed under the Contract. This certification shall, for each craft or trade employed on the project, specify the total hourly amount to be paid to employees, including wages and applicable fringe benefits, provide an itemization of the amount paid in wages and each applicable benefit, and list the names and addresses of any third party fund, plan or program to which benefit payments will be made on behalf of employees. The certification form available at: www.doli.virginia.gov/wp-content/uploads/2021/04/DOLI-Pay-Scale-Certification-for-Public-Works-Projects.pdf. The form may be emailed to prevailingwage@doli.virginia.gov, faxed to 804-371-6524, or mailed to Virginia Department of Labor and Industry, 600 East Main St., Suite 207, Richmond, VA, 23219, Attn: Prevailing Wage.
 3. The Contractor and the Contractor's subcontractors performing work on this Contract shall post the general prevailing wage rate for each craft and classification involved in prominent and easily accessible places accessible to all employees at the site of the work or at any such places as are used by the Contractor or subcontractors to pay workers their wages. Within 10 days of such posting, the Contractor or subcontractors shall certify to the Commissioner of VDOLI their compliance with this requirement. The certification form available at: www.doli.virginia.gov/wp-content/uploads/2021/04/PW_Posting_Compliance_Form.pdf. The form may be emailed to prevailingwage@doli.virginia.gov, faxed to 804-371-6524, or mailed to Virginia Department of Labor and Industry, 600 East Main St., Suite 207, Richmond, VA, 23219, Attn: Prevailing Wage.
 4. The Contractor and the Contractor's subcontractors shall keep, maintain and preserve (i) records relating to the wages paid to and hours worked by each individual performing the work of any mechanic, laborer, or worker and (ii) a schedule of the occupation or work classification at which each individual performing the work of any mechanic, laborer, or

worker on the public works project is employed during each work day and week. The employer shall preserve these records for a minimum of six years and make such records available to the Department of Labor and Industry within 10 days of a request and shall certify that records reflect the actual hours worked and the amount paid to its workers for whatever time period they request.

5. The Contractor shall insert this Special Provision into any subcontracts let to subcontractors for performance of services in connection with the Contract.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE
EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals for female and minority participation, expressed in percentage terms of the Contractor's aggregate work force in each trade on all construction works in the covered area, are as follows:

Females- 6.9%

Minorities - See Attachment "A"

The goals are applicable to all the Contractor's construction work performed in the covered area, whether or not it is Federal or federally assisted. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications, set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established herein. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executives Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 workings days the award of any construction subcontract in excess of \$10,000 at any tier for construction works under this contract. The notification shall list the name, address and telephone number of the subcontractor, employer identification number, estimated dollar amount of the subcontract, estimated starting and completion dates of the subcontract and the geographical area in which the Contract is to be performed.

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

1. As, used in this provision:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;

- d. "Minority" includes:
- (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation.
 3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors and Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
 4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
 6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.
 7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to

achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, shall assign two or more women to each construction project. The Contractor shall specifically ensure that all foreman, superintendents and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites in such facilities.
- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off the street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union, or if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper or annual report; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents and General Foremen prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including in any news media advertisement that the Contractor is "An Equal Opportunity Employer" for minority and female, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Directs its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one

month prior to the date for the acceptance of applications for apprenticeship or other training by recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used in the selection process.

- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of Contractor's workforce.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for such opportunities through appropriate training or other means.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are nonsegregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. Goals for women have been established. However, the Contractor IS required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner, that is even though the Contractor has achieved its goals for women, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director will proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate and make known to the Department a responsible official as the EEO Officer to monitor all employment related activity, to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors will not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

ATTACHMENT A

<u>Economic Area</u>	<u>Goal (Percent)</u>
Virginia:	
021 Roanoke-Lynchburg, VA	
SMSA Counties:	
4640 Lynchburg, VA	19.3
VA Amherst; VA Appomattox; VA Campbell; VA Lynchburg	
6800 Roanoke, VA	10.2
VA Botetourt; VA Craig; VA Roanoke; VA Roanoke City; VA Salem	
Non-SMSA Counties	12.0
VA Alleghany; VA Augusta; VA Bath; VA Bedford; VA Bland; VA Carroll;	
VA Floyd; VA Franklin; VA Giles; VA Grayson; VA Henry; VA Highland;	
VA Montgomery; VA Nelson; VA Patrick; VA Pittsylvania; VA Pulaski;	
VA Rockbridge; VA Rockingham; VA Wythe; VA Bedford City; VA Buena	
Vista:	
VA Clifton Forge; VA Covington; VA Danville; VA Galax; VA Harrisonburg;	
VA Lexington; VA Martinsville; VA Radford; VA Staunton; VA Waynesboro;	
WV Pendleton.	
022 Richmond, VA	
SMSA Counties:	
6140 Petersburg - Colonial Heights - Hopewell, VA	30.6
VA Dinwiddie; VA Prince George; VA Colonial Heights; VA Hopewell;	
VA Petersburg.	

6760 Richmond, VA	24.9
VA Charles City; VA Chesterfield; VA Goochland, VA Hanover; VA Henrico; VA New Kent; VA Powhatan; VA Richmond.	
Non-SMSA Counties	27.9
VA Albemarle; VA Amelia; VA Brunswick; VA Buckingham, VA Caroline; VA Charlotte; VA Cumberland; VA Essex; VA Fluvanna; VA Greene; VA Greensville; VA Halifax; VA King and Queen; VA King William; VA Lancaster; VA Louisa; VA Lunenburg; VA Madison; VA Mecklenburg; VA Northumberland; VA Nottoway; VA Orange; VA Prince Edward; VA Richmond VA Sussex; VA Charlottesville; VA Emporia; VA South Boston	
023 Norfolk - Virginia Beach - Newport News VA:	
SMSA Counties:	
5680 Newport News- Hampton, VA	27.1
VA Gloucester; VA James City; VA York; VA Hampton; VA Newport News; VA Williamsburg.	
5720 Norfolk - Virginia Beach - Portsmouth, VA - NC	26.6
NC Currituck; VA Chesapeake; VA Norfolk; VA Portsmouth; VA Suffolk; VA Virginia Beach.	
Non-SMSA Counties	29.7
NC Bertie; NC Camden; NC Chowan; NC Gates; NC Hertford; NC Pasquotank; NC Perquimans; VA Isle of Wight; VA Matthews; VA Middlesex; VA Southampton; VA Surry; VA Franklin.	
Washington, DC:	
020 Washington, DC.	
SMSA Counties:	
8840 Washington, DC - MD - VA	28.0
DC District of Columbia; MD Charles; MD Montgomery MD Prince Georges; VA Arlington; VA Fairfax; VA Loudoun; VA Prince William VA Alexandria; VA Fairfax City; VA Falls Church.	
Non- SMSA Counties	25.2
MD Calvert; MD Frederick; MD St. Marys; MD Washington; VA Clarke; VA Culpeper; VA Fauquier; VA Frederick; VA King George; VA Page; VA Rappahannock; VA Shenandoah; VA Spotsylvania; VA Stafford; VA Warren; VA Westmoreland; VA Fredericksburg; VA Winchester WV Berkeley; WV Grant; WV Hampshire; WV Hardy; WV Jefferson; WV Morgan.	
Tennessee:	
052 Johnson City - Kingsport - Bristol, TN - VA	
SMSA Counties:	
3630 Johnson City - Kingsport -Bristol, TN-VA	2.6
TN Carter; TN Hawkins; TN Sullivan; TN Washington; VA Scott: VA Washington; VA Bristol.	
Non-SMSA Counties	3.2
TN Greene; TN Johnson; VA Buchanan; VA Dickenson; VA Lee; VA Russell; VA Smyth; VA Tazewell; VA Wise; VA Norton; WV McDowell; WV Mercer.	
Maryland:	
019 Baltimore MD	
Non-SMSA Counties	23.6
MD Caroline; MD Dorchester; MD Kent; MD Queen Annes; MD Somerset; MD Talbot; MD Wicomico; MD Worchester; VA Accomack; VA Northampton.	

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 105.06—SUBCONTRACTING
(FEDERAL FUNDED PROJECTS)

February 9, 2017

SECTION 105.06—Subcontracting of the Specifications is amended to include the following:

- (d) According to Commonwealth of Virginia Executive Order 20, the Contractor is encouraged to seek out and consider Small, Women-owned, and Minority-owned (SWaM) businesses certified by the Department of Small Business and Supplier Diversity (DSBSD) as potential subcontractors and vendors. Further, the Contractor shall furnish and require each subcontractor (first-tier) to furnish information relative to subcontractor and vendor involvement on the project.

For purposes of this provision, the term “vendor” is defined as any consultant, manufacturer, supplier or hauler performing work or furnishing material, supplies or services for the contract. The Contractor and, or subcontractor (first-tier) must insert this provision in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). The applicable requirements of this provision are incorporated by reference for work done by vendors under any purchase order, rental agreement or agreement for other services for the contract. The Contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or vendor.

The submission of a bid will be considered conclusive evidence that the Contractor agrees to assume these contractual obligations and to bind subcontractors contractually to the same at the Contractor’s expense.

When an approved Form C-31 “Subletting Request” is required according to IIM-CD-2013-06.01, the Contractor shall indicate on the Subletting Request if a subcontractor is a certified DBE or SWaM business.

The Contractor shall report all DBE, SWaM, and Non SWaM vendor payments quarterly to the District Civil Rights Office. The Contractor shall provide the information in a format consistent with Form C-63, Vendor Payment Compliance Report, subject to the approval of the Engineer.

DBE Participation and reporting shall be in accordance with the Special Provision for Section 107.15 (Use of Disadvantaged Business Enterprises).

If the Contractor fails to provide the required information, the Department may delay final payment according to Specification Section 109.10 of the Specifications.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
DBE REQUIREMENTS

August 18, 2017

SECTION 107 – LEGAL RESPONSIBILITIES of the Specifications is revised as follows:

Section 107.15 – Use of Small, Women-Owned, and Minority-Owned Business is renamed **Use of Disadvantaged Business Enterprises (DBEs)** and replaced with the following:

(a) **Disadvantaged Business Enterprise (DBE) Program Requirements**

Any Contractor, subcontractor, supplier, DBE firm, and contract surety involved in the performance of work on a federal-aid contract shall comply with the terms and conditions of the United States Department of Transportation (USDOT) DBE Program as the terms appear in Part 26 of the Code of Federal Regulations (49 CFR as amended), the USDOT DBE Program regulations; and the Virginia Department of Transportation's (VDOT or the Department) Road and Bridge Specifications and DBE Program rules and regulations.

For the purposes of this provision, Contractor is defined as the Prime Contractor of the Contract; and sub-contractor is defined as any DBE supplier, manufacturer, or subcontractor performing work or furnishing material, supplies or services to the Contract. The Contractor shall physically include this same contract provision in every supply or work/service subcontract that it makes or executes with a subcontractor having work for which it intends to claim credit.

In accordance with 49 CFR Part 26 and VDOT's DBE Program requirements, the Contractor, for itself and for its subcontractors and suppliers, whether certified DBE firms or not, shall commit to complying fully with the auditing, record keeping, confidentiality, cooperation, and anti-intimidation or retaliation provisions contained in those federal and state DBE Program regulations. By bidding on this contract, and by accepting and executing this contract, the Contractor agrees to assume these contractual obligations and to bind the Contractor's subcontractors contractually to the same at the Contractor's expense.

The Contractor or subcontractor shall not discriminate on the basis of race, color, sex, sexual orientation, gender identity, or national origin in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award, administration, and performance of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which will result in the termination of this contract or other such remedy, as VDOT deems appropriate.

All administrative remedies noted in this provision are automatic unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein. Appeal requirements, processes, and procedures shall be in accordance with guidelines stated herein and current at the time of the proceedings. Where applicable, the Department will notify the Contractor of any changes to the appeal requirements, processes, and procedures after receiving notification of the Contractor's desire to appeal.

All time frames referenced in this provision are expressed in business days unless otherwise indicated. Should the expiration of any deadline fall on a weekend or holiday, such deadline will automatically be extended to the next normal business day.

(b) **DBE Certification**

The only DBE firms eligible to perform work on a federal-aid contract for DBE contract goal credit are firms certified as Disadvantaged Business Enterprises by the Virginia Department of Small Business and Supplier Diversity (DSBSD) or the Metropolitan Washington Airports Authority (MWAA) in accordance with federal and VDOT guidelines. DBE firms must be certified in the specific work listed for DBE contract goal credit. A directory listing of certified DBE firms can be obtained from the Virginia Department of [Small Business and Supplier Diversity website: www.sbsd.virginia.gov](http://www.sbsd.virginia.gov).

(c) Bank Services

The Contractor and each subcontractor are encouraged to use the services of banks owned and controlled by socially and economically disadvantaged individuals. Such banking services and the fees charged for services typically will not be eligible for DBE Program contract goal credit. Such information is available from the VDOT's Internet Civil Rights Division website: http://www.virginiadot.org/business/resources/Civil_Rights/VDOT_DB_E_Program_Plan.pdf

(d) DBE Program-Related Certifications Made by Bidders\Contractors

By submitting a bid and by entering into any contract on the basis of that bid, the bidder/Contractor certifies to each of the following DBE Program-related conditions and assurances:

1. That the management and bidding officers of its firm agree to comply with the bidding and project construction and administration obligations of the USDOT DBE Program requirements and regulations of 49 CFR Part 26 as amended, and VDOT's Road and Bridge Specifications and DBE Program requirements and regulations.
2. Under penalty of perjury and other applicable penal law that it has complied with the DBE Program requirements in submitting the bid, and shall comply fully with these requirements in the bidding, award, and execution of the Contract.
3. To ensure that DBE firms have been given full and fair opportunity to participate in the performance of the Contract. The bidder certifies that all reasonable steps were, and will be, taken to ensure that DBE firms had, and will have, an opportunity to compete for and perform work on the Contract. The bidder further certifies that the bidder shall not discriminate on the basis of race, color, age, sex, sexual orientation, gender identity, or national origin in the performance of the Contract or in the award of any subcontract. Any agreement between a bidder and a DBE whereby the DBE promises not to provide quotations for performance of work to other bidders is prohibited.
4. As a bidder, good faith efforts were made to obtain DBE participation in the proposed contract at or above the goal for DBE participation established by VDOT. It has submitted as a part of its bid true, accurate, complete, and detailed documentation of the good faith efforts it performed to meet the Contract goal for DBE participation. The bidder, by signing and submitting its bid, certifies the DBE participation information submitted within the stated time thereafter is true, correct, and complete, and that the information provided includes the names of all DBE firms that will participate in the Contract, the specific line item(s) that each listed DBE firm will perform, and the creditable dollar amounts of the participation of each listed DBE. The specific line item must reference the VDOT line number and item number contained in the proposal.
5. The bidder further certifies, by signing its bid, it has committed to use each DBE firm listed for the specific work item shown to meet the Contract goal for DBE participation. Award of the Contract will be conditioned upon meeting these and other listed requirements of 49 CFR Part 26.53 and the contract documents. By signing the bid, the bidder certifies on work that it proposes to sublet; it has made good faith efforts to seek out and consider DBEs as potential

subcontractors. The bidder shall contact DBEs to solicit their interest, capability, and prices in sufficient time to allow them to respond effectively, and shall retain on file proper documentation to substantiate its good faith efforts. Award of the Contract will be conditioned upon meeting these and other listed requirements of 49 CFR Part 26.53 and the contract documents.

6. Once awarded the Contract, the Contractor shall make good faith efforts to utilize DBE firms to perform work designated to be performed by DBEs at or above the amount or percentage of the dollar value specified in the bidding documents. Further, the Contractor understands it shall not unilaterally terminate, substitute for, or replace any DBE firm that was designated in the executed contract in whole or in part with another DBE, any non-DBE firm, or with the Contractor's own forces or those of an affiliate of the Contractor without the prior written consent of VDOT as set out within the requirements of this provision.
7. Once awarded the contract, the Contractor shall designate and make known to the Department a liaison officer who is assigned the responsibility of administering and promoting an active and inclusive DBE program as required by 49 CFR Part 26 for DBEs. The designation and identity of this officer need be submitted only once by the Contractor during any twelve (12) month period at the preconstruction conference for the first contract the Contractor has been awarded during that reporting period. The Department will post such information for informational and administrative purposes at VDOT's Internet Civil Rights Division website.
8. Once awarded the Contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each DBE firm participating in the Contract shall fully perform the designated work items with the DBE's own forces and equipment under the DBE's direct supervision, control, and management. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract regulations and/or requirements have not been met, and will assess against the Contractor any remedies available at law or provided in the Contract in the event of such a contract breach.
9. In the event a bond surety assumes the completion of work, if for any reason VDOT has terminated the prime Contractor, the surety shall be obligated to meet the same DBE contract terms and requirements as were required of the original prime Contractor in accordance with the requirements of this specification.

(e) Disqualification of Bidder

Bidders may be disqualified from bidding for failure to comply with the requirements of this Special Provision, the Contract specifications, and VDOT Road and Bridge Specifications.

(f) **Bidding Procedures**

The following bidding procedures shall apply to the Contract for DBE Program compliance purposes:

1. **Contract Goal, Good Faith Efforts Specified:** All bidders evidencing the attainment of DBE goal commitment equal to or greater than the required DBE goal established for the project must submit completed Form C-111, Minimum DBE Requirements, and Form C-48, Subcontractor/Supplier Solicitation and Utilization, as a part of the bid documents.

Form C-111 may be submitted electronically or may be faxed to the Department, but in no case shall the bidder's Form C-111 be received later than 10:00 a.m. the next business day after the time stated in the bid proposal for the receipt of bids. Form C-48 must be received within ten (10) business days after the bid opening.

If, at the time of submitting its bid, the bidder knowingly cannot meet or exceed the required DBE contract goal, it shall submit Form C-111 exhibiting the DBE participation it commits to attain as a part of its bid documents. The bidder shall then submit Form C-49, DBE Good Faith Efforts Documentation, within two (2) business days after the bid opening.

The lowest responsive and responsible bidder must submit its properly executed Form C-112, Certification of Binding Agreement, within three (3) business days after the bids are received. DBEs bidding as prime contractors are not required to submit Form C-112 unless they are utilizing other DBEs as subcontractors.

If, after review of the apparent lowest bid, VDOT determines the DBE requirements have not been met, the apparent lowest successful bidder must submit Form C-49, DBE Good Faith Efforts Documentation, which must be received by the Contract Engineer within two (2) business days after official notification of such failure to meet the aforementioned DBE requirements.

Forms C-48, C-49, C-111, and C-112 can be obtained from the VDOT website at:

<http://vdotforms.vdot.virginia.gov/>

Instructions for submitting Form C-111 can be obtained from the VDOT website at:

http://www.virginiadot.org/business/resources/const/Exp_DBE_Commitments.pdf

2. **Bid Rejection:** The failure of a bidder to submit the required documentation within the timeframes specified in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision may be cause for rejection of that bidder's bid.

If the lowest bidder is rejected for failure to submit the required documentation in the specified time frames, the Department may award the work to the next lowest bidder, or re-advertise the proposed work at a later date or proceed otherwise as determined by the Commonwealth.

3. **Good Faith Efforts Described:** In order to award a contract to a bidder that has failed to meet DBE contract goal requirements, VDOT will determine if the bidder's efforts were adequate good faith efforts, and if given all relevant circumstances, those efforts were made actively and aggressively to meet the DBE requirements. Efforts to obtain DBE participation are not good faith efforts if they could not reasonably be expected to produce a level of DBE participation sufficient to meet the DBE Program and contract goal requirements.

Good faith efforts may be determined through use of the following list of the types of actions the bidder may make to obtain DBE participation. This is not intended to be a mandatory

checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts of similar intent may be relevant in appropriate cases:

- a. Soliciting through reasonable and available means, such as but not limited to, attendance at pre-bid meetings, advertising, and written notices to DBEs who have the capability to perform the work of the Contract. Examples include: advertising in at least one daily/weekly/monthly newspaper of general circulation, as applicable; phone contact with a completely documented telephone log, including the date and time called, contact person, or voice mail status; and internet contacts with supporting documentation, including dates advertised. The bidder shall solicit this interest no less than five (5) business days before the bids are due so that the solicited DBEs have enough time to reasonably respond to the solicitation. The bidder shall determine with certainty if the DBEs are interested by taking reasonable steps to follow up initial solicitations as evidenced by documenting such efforts as requested on Form C-49, DBE Good Faith Efforts Documentation.
- b. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to completely perform all portions of this work in its entirety or use its own forces;
- c. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the Contract in a timely manner, which will assist the DBEs in responding to a solicitation;
- d. Negotiating for participation in good faith with interested DBEs;
 - (1) Evidence of such negotiation shall include the names, addresses, and telephone numbers of DBEs that were considered; dates DBEs were contacted; a description of the information provided regarding the plans, specifications, and requirements of the Contract for the work selected for subcontracting; and, if insufficient DBE participation seems likely, evidence as to why additional agreements could not be reached for DBEs to perform the work;
 - (2) A bidder using good business judgment should consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and should take a firm's price, qualifications, and capabilities, as well as contract goals, into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not sufficient reason for a bidder's failure to meet the Contract goal for DBE participation, as long as such costs are reasonable and comparable to costs customarily appropriate to the type of work under consideration. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make diligent good faith efforts. Bidders are not, however, required to accept higher quotes from DBEs if the price difference can be shown by the bidder to be excessive, unreasonable, or greater than would normally be expected by industry standards;
- e. A bidder cannot reject a DBE as being unqualified without sound reasons based on a thorough investigation of the DBE's capabilities. The DBE's standing within its industry, membership in specific groups, organizations, associations, and political or social affiliations, and union vs. non-union employee status are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal for DBE participation;

- f. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by VDOT or by the bidder/Contractor;
- g. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services subject to the restrictions contained in these provisions;
- h. Effectively using the services of appropriate personnel from VDOT and from DMBE; available minority/women community or minority organizations; contractors' groups; local, state, and Federal minority/ women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and utilization of qualified DBEs.

(g) Documentation and Administrative Reconsideration of Good Faith Efforts

During Bidding: As described in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision, the bidder must provide Form C-49, DBE Good Faith Efforts Documentation, of its efforts made to meet the DBE contract goal as proposed by VDOT within the time frame specified in this provision. The means of transmittal and the risk for timely receipt of this information shall be the responsibility of the bidder. The bidder shall attach additional pages to the certification, if necessary, in order to fully detail specific good faith efforts made to obtain the DBE firms participation in the proposed contract work.

However, regardless of the DBE contract goal participation level proposed by the bidder or the extent of good faith efforts shown, all bidders shall timely and separately file their completed and executed forms C-111, C-112, C-48, and C-49, as aforementioned, or face potential bid rejection.

If a bidder does not submit its completed and executed forms C-111, or C-112, when required by this Special Provision, the bidder's bid will be considered non-responsive and may be rejected.

Where the Department upon initial review of the bid results determines the apparent low bidder has failed or appears to have failed to meet the requirements of the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision and has failed to adequately document that it made a good faith effort to achieve sufficient DBE participation as specified in the bid proposal, that firm upon notification of the Department's initial determination will be offered the opportunity for administrative reconsideration before VDOT rejects that bid as non-responsive. The bidder shall address such request for reconsideration in writing to the Contract Engineer within five (5) business days of receipt of notification by the Department and shall be given the opportunity to discuss the issue and present its evidence in person to the Administrative Reconsideration Panel. The Administrative Reconsideration Panel will be made up of VDOT Division Administrators or their designees, none of who took part in the initial determination that the bidder failed to make the goal or make adequate good faith efforts to do so. After reconsideration, VDOT shall notify the bidder in writing of its decision and explain the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so.

If, after reconsideration, the Department determines the bidder has failed to meet the requirements of the Contract goal and has failed to make adequate good faith efforts to achieve the level of DBE participation as specified in the bid proposal, the bidder's bid will be rejected.

If sufficient documented evidence is presented to demonstrate that the apparent low bidder made reasonable good faith efforts, the Department will award the Contract and reduce the DBE requirement to the actual commitment identified by the lowest successful bidder at the time of its bid. The Contractor is still encouraged to seek additional DBE participation during the life of the Contract.

However, such action will not relieve the Contractor of its responsibility for complying with the reduced DBE requirement during the life of the Contract or any administrative sanctions as may be appropriate.

During the Contract: If a DBE, through no fault of the Contractor, is unable or unwilling to fulfill his agreement with the Contractor, the Contractor shall immediately notify the Department and provide all relevant facts. If a Contractor relieves a DBE subcontractor of the responsibility to perform work under their subcontract, the Contractor is encouraged to take the appropriate steps to obtain a DBE to perform an equal dollar value of the remaining subcontracted work. In such instances, the Contractor is expected to seek DBE participation towards meeting the goal during the performance of the Contract.

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or at any point at which it is clearly evident that the remaining dollar value of allowable credit for performing work is insufficient to obtain the scheduled participation, and the Contractor has not taken the preceding actions, the Contractor and any aforementioned affiliates may be subject to disallowance of DBE credit until such time as conformance with the schedule of DBE participation is achieved.

Project Completion: If the Contractor fails upon completion of the project to meet the required participation, the Contractor and any prime contractual affiliates, as in the case of a joint venture, may be enjoined from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects for a period of 90 days.

Prior to enjoinder from bidding or denial to participate as a subcontractor for failure to comply with participation requirements, as provided hereinbefore, the Contractor may submit documentation to the State Construction Engineer to substantiate that failure was due solely to quantitative underrun(s), elimination of items subcontracted to DBEs, or to circumstances beyond their control, and that all feasible means have been used to obtain the required participation. The State Construction Engineer upon verification of such documentation shall make a determination whether or not the Contractor has met the requirements of the Contract.

If it is determined that the aforementioned documentation is insufficient or the failure to meet required participation is due to other reasons, the Contractor may request an appearance before the Administrative Reconsideration Panel to establish that all feasible means were used to meet such participation requirements. The decision of the Administrative Reconsideration Panel shall be administratively final. If the decision is made to enjoin the Contractor from bidding on other VDOT work as described herein, the enjoinder period will begin upon the Contractor's failure to request a hearing within the designated time frame or upon the Administrative Reconsideration Panel's decision to enjoin, as applicable.

(h) **DBE Participation for Contract Goal Credit**

1. Cost-plus subcontracts will not be considered to be in accordance with normal industry practice and will not normally be allowed for credit.
2. The applicable percentage of the total dollar value of the Contract or Subcontract awarded to the DBE will be counted toward meeting the Contract goal for DBE participation in accordance with the **DBE Program-Related Certifications Made by Bidders\Contractors** section of this Special Provision for the value of the work, goods, or services that are actually performed or provided by the DBE firm itself or subcontracted by the DBE to other DBE firms.
3. When a DBE performs work as a participant in a joint venture with a non-DBE firm, the Contractor may count toward the DBE goal only that portion of the total dollar value of the Contract equal to the distinctly defined portion of the Contract work that the DBE has performed with the DBE's own forces or in accordance with the provisions of this Section.

The Department shall be contacted in advance regarding any joint venture involving both a DBE firm and a non-DBE firm to coordinate Department review and approval of the joint venture's organizational structure and proposed operation where the Contractor seeks to claim the DBE's credit toward the DBE contract goal.

4. When a DBE subcontracts part of the work of the Contract to another firm, the value of that subcontracted work may be counted toward the DBE contract goal only if the DBE's subcontractor at a lower tier is a certified DBE. Work that a DBE subcontracts to either a non-DBE firm or to a non-certified DBE firm will not count toward the DBE contract goal. The cost of supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or the prime's affiliated firms will not count toward the Contract goal for DBE participation.
5. The Contractor may count expenditures to a DBE subcontractor toward the DBE contract goal only if the DBE performs a Commercially Useful Function (CUF) on that contract.
6. A Contractor may not count the participation of a DBE subcontractor toward the Contractor's final compliance with the DBE contract goal obligations until the amount being counted has actually been paid to the DBE. A Contractor may count sixty (60) percent of its expenditures actually paid for materials and supplies obtained from a DBE certified as a regular dealer, and one hundred (100) percent of such expenditures actually paid for materials and supplies obtained from a certified DBE manufacturer.
 - a. For the purposes of this Special Provision, a regular dealer is defined as a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required and used under the Contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the DBE firm shall be an established business that regularly engages, as its principal business and under its own name, in the purchase and sale or lease of the products or equipment in question. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions will not be considered regular dealers.
 - b. A DBE firm may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business where it keeps such items in stock if the DBE both owns and operates distribution equipment for the products it sells and provides for the Contract work. Any supplementation of a regular dealer's own distribution equipment shall be by a long-term lease agreement and not on an *ad hoc* or contract-by-contract basis to be eligible for credit to meet the DBE contract goal.
 - c. If a DBE regular dealer is used for DBE contract goal credit, no additional credit will be given for hauling or delivery to the project site goods or materials sold by that DBE regular dealer. Those delivery costs shall be deemed included in the price charged for the goods or materials by the DBE regular dealer, who shall be responsible for their distribution.
 - d. For the purposes of this Special Provision, a manufacturer will be defined as a firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the Contract and of the general character described by the project specifications. A manufacturer shall include firms that produce finished goods or products from raw or unfinished material, or purchase and substantially alter goods and materials to make them suitable for construction use before reselling them.

- e. A Contractor may count toward the DBE contract goal the following expenditures to DBE firms that are not regular dealers or manufacturers for DBE program purposes:
 - (1) The entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant or managerial services, or for providing bonds or insurance specifically required for the performance of the federal-aid contract, if the fee is reasonable and not excessive or greater than would normally be expected by industry standards for the same or similar services.
 - (2) The entire amount of that portion of the construction contract that is performed by the DBE's own forces and equipment under the DBE's supervision. This includes the cost of supplies and materials ordered and paid for by the DBE for contract work, including supplies purchased or equipment leased by the DBE, except supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or its affiliates.
- f. A Contractor may count toward the DBE contract goal one hundred (100) percent of the fees paid to a DBE trucker or hauler for the delivery of material and supplies required on the project job site, but not for the cost of those materials or supplies themselves, provided that the trucking or hauling fee is determined by VDOT to be reasonable, as compared with fees customarily charged by non-DBE firms for similar services. A Contractor shall not count costs for the removal or relocation of excess material from or on the job site when the DBE trucking company is not the manufacturer of or a regular dealer in those materials and supplies. The DBE trucking firm shall also perform a Commercially Useful Function (CUF) on the project and not operate merely as a pass through for the purposes of gaining credit toward the DBE contract goal. Prior to submitting a bid, the Contractor shall determine, or contact the VDOT Civil Rights Division or its district Offices for assistance in determining, whether a DBE trucking firm will meet the criteria for performing a CUF on the project. See section on **Miscellaneous DBE Program Requirements; Factors used to Determine if a DBE Trucking Firm is Performing a CUF.**
- g. The Contractor will receive DBE contract goal credit for the fees or commissions charged by and paid to a DBE broker who arranges or expedites sales, leases, or other project work or service arrangements provided that those fees are determined by VDOT to be reasonable and not excessive as compared with fees customarily charged by non-DBE firms for similar services. For the purposes of this Special Provision, a broker is defined as a person or firm that regularly engages in arranging for delivery of material, supplies, and equipment, or regularly arranges for the providing of project services as a course of routine business but does not own or operate the delivery equipment necessary to transport materials, supplies, or equipment to or from a job site.

(i) **Performing a Commercially Useful Function (CUF)**

No credit toward the DBE contract goal will be allowed for contract payments or expenditures to a DBE firm if that DBE firm does not perform a CUF on that contract. A DBE performs a CUF when the DBE is solely responsible for execution of a distinct element of the Contract work and the DBE actually performs, manages, and supervises the work involved with the firm's own forces or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. To perform a CUF the DBE alone shall be responsible and bear the risk for the material and supplies used on the Contract, selecting a supplier or dealer from those available, negotiating price, determining quality and quantity, ordering the material and supplies, installing those materials with the DBE's own forces and equipment, and paying for those materials and supplies. The amount the DBE firm is to be paid under the Contract shall be commensurate with the work the DBE actually performs and the DBE credit claimed for the DBE's performance.

Monitoring CUF Performance: It shall be the Contractor's responsibility to ensure that all DBE firms selected for subcontract work on the Contract, for which he seeks to claim credit toward the Contract goal, perform a CUF. Further, the Contractor is responsible for and shall ensure that each DBE firm fully performs the DBE's designated tasks with the DBE's own forces and equipment under the DBE's own direct supervision and management or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. For the purposes of this provision the DBE's equipment will mean either equipment directly owned by the DBE as evidenced by title, bill of sale or other such documentation, or leased by the DBE, and over which the DBE has control as evidenced by the leasing agreement from a firm not owned in whole or part by the prime Contractor or an affiliate of the Contractor under this contract.

VDOT will monitor the Contractor's DBE involvement during the performance of the Contract. However, VDOT is under no obligation to warn the Contractor that a DBE's participation will not count toward the goal.

DBEs Must Perform a Useful and Necessary Role in Contract Completion: A DBE does not perform a commercially useful function if the DBE's role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

DBEs Must Perform The Contract Work With Their Own Workforces: If a DBE does not perform and exercise responsibility for at least thirty (30) percent of the total cost of the DBE's contract with the DBE's own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involve, VDOT will presume that the DBE is not performing a CUF and such participation will not be counted toward the Contract goal.

VDOT Makes Final Determination On Whether a CUF Is Performed: VDOT has the final authority to determine whether a DBE firm has performed a CUF on a federal-aid contract. To determine whether a DBE is performing or has performed a CUF, VDOT will evaluate the amount of work subcontracted by that DBE firm or performed by other firms and the extent of the involvement of other firms' forces and equipment. Any DBE work performed by the Contractor or by employees or equipment of the Contractor shall be subject to disallowance under the DBE Program, unless the independent validity and need for such an arrangement and work is demonstrated.

(j) **Verification of DBE Participation and Imposed Damages**

Within fourteen days after contract execution, the Contractor shall submit to the Responsible Engineer, with a copy to the District Civil Rights Office (DCRO), a fully executed subcontract agreement for each DBE used to claim credit in accordance with the requirements stated on Form C-112. The subcontract agreement shall be executed by both parties stating the work to be performed, the details or specifics concerning such work, and the price which will be paid to the DBE subcontractor. Because of the commercial damage that the Contractor and its DBE subcontractor could suffer if their subcontract pricing, terms, and conditions were known to competitors, the Department staff will treat subcontract agreements as proprietary Contractor trade secrets with regard to Freedom of Information Act requests. In lieu of subcontract agreements, purchase orders may be submitted for haulers, suppliers, and manufacturers. These too, will be treated confidentially and protected. Such purchase orders must contain, as a minimum, the following information: authorized signatures of both parties; description of the scope of work to include contract item numbers, quantities, and prices; and required federal contract provisions.

The Contractor shall also furnish, and shall require each subcontractor to furnish, information relative to all DBE involvement on the project for each quarter during the life of the Contract in which participation occurs and verification is available. The information shall be indicated on Form C-63, DBE and SWAM Payment Compliance Report. The department reserves the right to request proof of payment via copies of cancelled checks with appropriate identifying notations. Failure to provide Form C-63 to the District Civil Rights Office (DCRO) within five (5) business days after the reporting period may result in delay of approval of the Contractor's monthly progress estimate for payment. The names and certification numbers of DBE firms provided by the Contractor on the various forms indicated in this Special Provision shall be exactly as shown on the DMBE's or MWAA's latest list of certified DBEs. Signatures on all forms indicated herein shall be those of authorized representatives of the Contractor as shown on the Prequalification Application, Form C-32 or the Prequalification/Certification Renewal Application, Form C-32A, or authorized by letter from the Contractor. If DBE firms are used which have not been previously documented with the Contractor's bid and for which the Contractor now desires to claim credit toward the project goal, the Contractor shall be responsible for submitting necessary documentation in accordance with the procedures stipulated in this Special Provision to cover such work prior to the DBE beginning work.

Form C-63 can be obtained from the VDOT website at: <http://vdotforms.vdot.virginia.gov/>

The Contractor shall submit to the Responsible Engineer its progress schedule with a copy to the DCRO, as required by Section 108.03 of the Specifications or other such specific contract scheduling specification that may include contractual milestones, i.e., monthly or VDOT requested updates. The Contractor shall include a narrative of applicable DBE activities relative to work activities of the Contractor's progress schedule, including the approximate start times and durations of all DBE participation to be claimed for credit that shall result in full achievement of the DBE goal required in the Contract.

On contracts awarded on the basis of good faith efforts, narratives or other agreeable format of schedule information requirements and subsequent progress determination shall be based on the commitment information shown on the latest Form C-111 as compared with the appropriate Form C-63.

Prior to beginning any major component or quarter of the work, as applicable, in which DBE work is to be performed, the Contractor shall furnish a revised Form C-111 showing the name(s) and certification number(s) of any current DBEs not previously submitted who will perform the work during that major component or quarter for which the Contractor seeks to claim credit toward the Contract DBE goal. The Contractor shall obtain the prior approval of the Department for any assistance it may provide to the DBE beyond its existing resources in executing its commitment to the work in accordance with the requirements listed in the **Good Faith Efforts Described** section of this Special Provision. If the Contractor is aware of any assistance beyond a DBE's existing resources that the Contractor, or another subcontractor, may be contemplating or may deem necessary and that have not been previously approved, the Contractor shall submit a new or revised narrative statement for VDOT's approval prior to assistance being rendered.

If the Contractor fails to comply with correctly completing and submitting any of the required documentation requested by this provision within the specified time frames, the Department will withhold payment of the monthly progress estimate until such time as the required submissions are received VDOT. Where such failures to provide required submittals or documentation are repeated the Department will move to enjoin the Contractor and any prime contractual affiliates, as in the case of a joint venture, from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects until such submissions are received.

(k) **Documentation Required for Semi-final Payment**

On those projects nearing completion, the Contractor must submit Form C-63 marked "Semi-Final" within twenty (20) days after the submission of the last regular monthly progress estimate to the DCRO. The form must include each DBE used on the Contract work and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the accepted creditable work on the Contract. The form shall be certified under penalty of perjury, or other applicable law, to be accurate and complete. VDOT will use this certification and other information available to determine applicable DBE credit allowed to date by VDOT and the extent to which the DBEs were fully paid for that work. The Contractor shall acknowledge by the act of filing the form that the information is supplied to obtain payment regarding a federal participation contract. A letter of certification, signed by both the prime Contractor and appropriate DBEs, will accompany the form, indicating the amount, including any retainage, if present, that remains to be paid to the DBE(s).

(l) Documentation Required for Final Payment

On those projects that are complete, the Contractor shall submit a final Form C-63 marked "Final" to the DCRO, within thirty (30) days of the final estimate. The form must include each DBE used on the Contract and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the creditable work on the Contract. VDOT will use this form and other information available to determine if the Contractor and DBEs have satisfied the DBE contract goal percentage specified in the Contract and the extent to which credit was allowed. The Contractor shall acknowledge by the act of signing and filing the form that the information is supplied to obtain payment regarding a federal participation contract.

(m) Prompt Payment Requirements

The Contractor shall make prompt and full payment to the subcontractor(s) of any retainage held by the prime Contractor after the subcontractor's work is satisfactorily completed.

For purposes of this Special Provision, a subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, documented, and accepted as required by the contract documents by VDOT. When VDOT has made partial acceptance of a portion of the prime contract, the Department will consider the work of any subcontractor covered by that partial acceptance to be satisfactorily completed. Payment will be made in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

Upon VDOT's payment of the subcontractor's portion of the work as shown on the monthly progress estimate and the receipt of payment by the Contractor for such work, the Contractor shall make compensation in full to the subcontractor for that portion of the work satisfactorily completed and accepted by the Department. For the purposes of this Special Provision, payment of the subcontractor's portion of the work shall mean the Contractor has issued payment in full, less agreed upon retainage, if any, to the subcontractor for that portion of the subcontractor's work that VDOT paid to the Contractor on the monthly progress estimate.

The Contractor shall make payment of the subcontractor's portion of the work within seven (7) days of the receipt of payment from VDOT in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

If the Contractor fails to make payment for the subcontractor's portion of the work within the time frame specified herein, the subcontractor shall contact the Responsible Engineer and the Contractor's bonding company in writing. The bonding company and VDOT will investigate the cause for non-payment and, barring mitigating circumstances that would make the subcontractor ineligible for payment, ensure payment in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

By bidding on this contract, and by accepting and executing this contract, the Contractor agrees to assume these contractual obligations, and to bind the Contractor's subcontractors contractually to those prompt payment requirements.

Nothing contained herein shall preclude the Contractor from withholding payment to the subcontractor in accordance with the terms of the subcontract in order to protect the Contractor from loss or cost of damage due to a breach of agreement by the subcontractor.

(n) **Miscellaneous DBE Program Requirements**

1. **Loss of DBE Eligibility:** When a DBE firm has been removed from eligibility as a certified DBE firm, the following actions will be taken:
 - a. When a Bidder/Contractor has made a commitment to use a DBE firm that is not currently certified, thereby making the Contractor ineligible to receive DBE participation credit for work performed, and a subcontract has not been executed, the ineligible DBE firm does not count toward either the Contract goal or overall goal. The Contractor shall meet the Contract goal with a DBE firm that is eligible to receive DBE credit for work performed, or must demonstrate to the Contract Engineer that it has made good faith efforts to do so.
 - b. When a Bidder/Contractor has executed a subcontract with a certified DBE firm prior to official notification of the DBE firm's loss of eligibility, the Contractor may continue to use the firm on the Contract and shall continue to receive DBE credit toward its DBE goal for the subcontractor's work.
 - c. When VDOT has executed a prime contract with a DBE firm that is certified at the time of contract execution but that is later ruled ineligible, the portion of the ineligible firm's performance on the Contract before VDOT has issued the notice of its ineligibility shall count toward the Contract goal.
2. **Termination of DBE:** If a certified DBE subcontractor is terminated, or fails, refuses, or is unable to complete the work on the Contract for any reason, the Contractor must promptly request approval to substitute or replace that firm in accordance with this section of this Special Provision.

The Contractor, as aforementioned in **DBE Program-Related Certifications Made by Bidders/Contractors**, shall notify VDOT in writing before terminating and/or replacing the DBE that was committed as a condition of contract award or that is otherwise being used or represented to fulfill DBE contract obligations during the Contract performance period. Written consent from the Department for terminating the performance of any DBE shall be granted only when the Contractor can demonstrate that the DBE is unable, unwilling, or ineligible to perform its obligations for which the Contractor sought credit toward the Contract DBE goal. Such written consent by the Department to terminate any DBE shall concurrently constitute written consent to substitute or replace the terminated DBE with another DBE. Consent to terminate a DBE shall not be based on the Contractor's ability to negotiate a more advantageous contract with another subcontractor whether that subcontractor is, or is not, a certified DBE.

- a. All Contractor requests to terminate, substitute, or replace a certified DBE shall be in writing, and shall include the following information:
 - (1) The date the Contractor determined the DBE to be unwilling, unable, or ineligible to perform.

- (2) The projected date that the Contractor shall require a substitution or replacement DBE to commence work if consent is granted to the request.
 - (3) A brief statement of facts describing and citing specific actions or inaction by the DBE giving rise to the Contractor's assertion that the DBE is unwilling, unable, or ineligible to perform;
 - (4) A brief statement of the affected DBE's capacity and ability to perform the work as determined by the Contractor;
 - (5) A brief statement of facts regarding actions taken by the Contractor which are believed to constitute good faith efforts toward enabling the DBE to perform;
 - (6) The current percentage of work completed on each bid item by the DBE;
 - (7) The total dollar amount currently paid per bid item for work performed by the DBE;
 - (8) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and with which the Contractor has no dispute;
 - (9) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and over which the Contractor and/or the DBE have a dispute.
- b. Contractor's Written Notice to DBE of Pending Request to Terminate and Substitute with another DBE.

The Contractor shall send a copy of the "request to terminate and substitute" letter to the affected committed DBE firm, in conjunction with submitting the request to the DCRO. The affected DBE firm may submit a response letter to the Department within two (2) business days of receiving the notice to terminate from the Contractor. The affected DBE firm shall explain its position concerning performance on the committed work. The Department will consider both the Contractor's request and the DBE's response and explanation before approving the Contractor's termination and substitution request, or determining if any action should be taken against the Contractor.

If, after making its best efforts to deliver a copy of the "request to terminate and substitute" letter, the Contractor is unsuccessful in notifying the affected DBE firm, the Department will verify that the affected, committed DBE firm is unable or unwilling to continue the Contract. The Department will immediately approve the Contractor's request for a substitution.

- c. Proposed Substitution of Another Certified DBE

Upon termination of a DBE, the Contractor shall use reasonable good faith efforts to replace the terminated DBE. The termination of such DBE shall not relieve the Contractor of its obligations pursuant to this section, and the unpaid portion of the terminated DBE's contract will not be counted toward the Contract goal.

When a DBE substitution is necessary, the Contractor shall submit an amended Form C-111 with the name of another DBE firm, the proposed work to be performed by that firm, and the dollar amount of the work to replace the unfulfilled portion of the work of the originally committed DBE firm. The Contractor shall furnish all pertinent information including the Contract I.D. number, project number, bid item, item description, bid unit and bid quantity, unit price, and total price. In addition, the Contractor shall submit

documentation for the requested substitute DBE as described in this section of this Special Provision.

Should the Contractor be unable to commit the remaining required dollar value to the substitute DBE, the Contractor shall provide written evidence of good faith efforts made to obtain the substitute value requirement. The Department will review the quality, thoroughness, and intensity of those efforts. Efforts that are viewed by VDOT as merely superficial or pro-forma will not be considered good faith efforts to meet the Contract goal for DBE participation. The Contractor must document the steps taken that demonstrated its good faith efforts to obtain participation as set forth in the **Good Faith Efforts Described** section of this Special Provision.

3. Factors Used to determine if a DBE Trucking Firm is performing a CUF:

The following factors will be used to determine whether a DBE trucking company is performing a CUF:

- a. To perform a CUF the DBE trucking firm shall be completely responsible for the management and supervision of the entire trucking operation for which the DBE is responsible by subcontract on a particular contract. There shall not be a contrived arrangement, including, but not limited to, any arrangement that would not customarily and legally exist under regular construction project subcontracting practices for the purpose of meeting the DBE contract goal;
- b. The DBE must own and operate at least one fully licensed, insured, and operational truck used in the performance of the Contract work. This does not include a supervisor's pickup truck or a similar vehicle that is not suitable for and customarily used in hauling the necessary materials or supplies;
- c. The DBE receives full contract goal credit for the total reasonable amount the DBE is paid for the transportation services provided on the Contract using trucks the DBE owns, insures, and operates using drivers that the DBE employs and manages;
- d. The DBE may lease trucks from another certified DBE firm, including from an owner-operator who is certified as a DBE. The DBE firm that leases trucks from another DBE will receive credit for the total fair market value actually paid for transportation services the lessee DBE firm provides on the Contract;
- e. The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE lessees, *not to exceed the value of transportation services provided by DBE-owned trucks on the Contract*. For additional participation by non-DBE lessees, the DBE will only receive credit for the fee or commission it receives as a result of the lease arrangement.

EXAMPLE

DBE Firm X uses two (2) of its own trucks on a contract. The firm leases two (2) trucks from DBE Firm Y and six (6) trucks from non-DBE Firm Z.

Firm X		Value of Trans. Serv.
Truck 1	Owned by DBE	\$100 per day
Truck 2	Owned by DBE	\$100 per day

(For Illustrative Purposes Only)

Firm Y

Truck 1	Leased from DBE	\$110 per day
Truck 2	Leased from DBE	\$110 per day

Firm Z

Truck 1	Leased from Non DBE	\$125 per day
Truck 2	Leased from Non DBE	\$125 per day
Truck 3	Leased from Non DBE	\$125 per day
Truck 4	Leased from Non DBE	\$125 per day
<hr/>		
Truck 5	Leased from Non DBE*	\$125 per day
Truck 6	Leased from Non DBE*	\$125 per day

DBE credit would be awarded for the total transportation services provided by DBE Firm X and DBE Firm Y, and may also be awarded for the total value of transportation services by four (4) of the six (6) trucks provided by non-DBE Firm Z (not to exceed the value of transportation services provided by DBE-owned trucks).

Credit = 8 Trucks

Total Value of Transportation Services = \$820

In all, full DBE credit would be allowed for the participation of eight (8) trucks (twice the number of DBE trucks owned and leased) and the dollar value attributable to the Value of Transportation Services provided by the 8 trucks.

* With respect to the other two trucks provided by non-DBE Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks that DBE Firm X receives as a result of the lease with non-DBE Firm Z.

- f. For purposes of this section, the lease must indicate that the DBE firm leasing the truck has exclusive use of and control over the truck. This will not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, provided the lease gives the DBE absolute priority for and control over the use of the leased truck. Leased trucks must display the name and identification number of the DBE firm that has leased the truck at all times during the life of the lease.
4. **Data Collection:** In accordance with 49CFR Section 26.11, all firms bidding on prime contracts and bidding or quoting subcontracts on federal-aid projects shall provide the following information to the Contract Engineer annually.
- Firm name
 - Firm address
 - Firm's status as a DBE or non-DBE

- The age of the firm and
- The annual gross receipts of the firm

The means of transmittal and the risk for timely receipt of this information shall be the responsibility of the bidder. However, the above information can be submitted by means of the Annual Gross Receipts Survey as required in the Prequalification/Certification application.

All bidders, including DBE prime Contractor bidders, shall complete and submit to the Contract Engineer the Subcontractor/Supplier Solicitation and Utilization Form C-48 for each bid submitted; to be received within ten (10) business days after the bid opening. Failure of bidders to submit this form in the time frame specified may be cause for disqualification of the bidder and rejection of their bid in accordance with the requirements of this Special Provision, the Contract specifications, and VDOT Road and Bridge specifications.

(o) Suspect Evidence of Criminal Behavior

Failure of a bidder, Contractor, or subcontractor to comply with the Virginia Department of Transportation Road and Bridge Specifications and these Special Provisions wherein there appears to be evidence of criminal conduct shall be referred to the Attorney General for the Commonwealth of Virginia and/or the FHWA Inspector General for criminal investigation and, if warranted, prosecution.

Suspected DBE Fraud

In appropriate cases, VDOT will bring to the attention of the U. S. Department of Transportation (USDOT) any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g., referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49CFR Part 31.

(p) Summary of Remedies for Non-Compliance with DBE Program Requirements

Failure of any bidder\Contractor to comply with the requirements of this Special Provision for Section 107.15 of the Virginia Road and Bridge Specifications, which is deemed to be a condition of bidding, or where a contract exists, is deemed to constitute a breach of contract shall be remedied in accordance with the following:

1. Disadvantaged Business Enterprise (DBE) Program Requirements

The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award, administration, and performance of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which will result in the termination of this contract or other such remedy, as VDOT deems appropriate.

All administrative remedies noted in this provision are automatic unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein.

2. DBE Program-Related Certifications Made by Bidders\Contractors

Once awarded the contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each certified DBE firm participating in the Contract shall fully perform the designated work items with the DBE's own forces and equipment under the DBE's direct supervision, control, and management. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their

requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract requirements have not been met, and will assess against the Contractor any remedies available at law or provided in the Contract in the event of such a contract breach.

3. **Disqualification of Bidder**

Bidders may be disqualified from bidding for failure to comply with the requirements of this Special Provision, the Contract specifications, and VDOT Road and Bridge Specifications.

4. **Bidding Procedures**

The failure of a bidder to submit the required documentation within the timeframes specified in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision may be cause for rejection of that bidder's bid. If the lowest bidder is rejected for failure to submit required documentation in the specified time frames, the Department may either award the work to the next lowest bidder, or re-advertise and construct the work under contract or otherwise as determined by the Commonwealth.

In order to award a contract to a bidder that has failed to meet DBE contract goal requirements, VDOT will determine if the bidder's efforts were adequate good faith efforts, and if given all relevant circumstances, those efforts were to the extent a bidder actively and aggressively seeking to meet the requirements would make. Regardless of the DBE contract goal participation level proposed by the bidder or the extent of good faith efforts shown, all bidders shall timely and separately file their completed and executed Forms C-111, C-112, C-48, and Form C-49, as aforementioned, or face potential bid rejection. If a bidder does not submit its completed and executed C-111, or C-112, when required by this Special Provision, the bidder's bid will be considered non-responsive and may be rejected. If, after reconsideration, the Department determines the bidder has failed to meet the requirements of the Contract goal and has failed to make adequate good faith efforts to achieve the level of DBE participation as specified in the bid proposal, the bidder's bid will be rejected. If sufficient documented evidence is presented to demonstrate that the apparent low bidder made reasonable good faith efforts, the Department will award the Contract and reduce the DBE requirement to the actual commitment identified by the lowest successful bidder at the time of its bid. The Contractor is encouraged to seek additional participation during the life of the Contract.

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or at any point at which it is clearly evident that the remaining dollar value of allowable credit for performing work is insufficient to obtain the scheduled participation, the Contractor and any aforementioned affiliates may be enjoined from bidding for 60 days or until such time as conformance with the schedule of DBE participation is achieved. In such instances, the Contractor is expected to seek DBE participation towards meeting the goal during the prosecution of the Contract.

If the Contractor fails upon completion of the project to meet the required participation, the Contractor and any prime contractual affiliates, as in the case of a joint venture, may be enjoined from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects for a period of 90 days.

Prior to enjoinder from bidding or denial to participate as a subcontractor for failure to comply with participation requirements, as provided hereinbefore, the Contractor may submit documentation to the State Construction Engineer to substantiate that failure was due solely to quantitative underrun(s) or elimination of items subcontracted to DBEs, and that all feasible means have been used to obtain the required participation. The State Construction Engineer

upon verification of such documentation shall make a determination whether or not the Contractor has met the requirements of the Contract.

If it is determined that the aforementioned documentation is insufficient or the failure to meet required participation is due to other reasons, the Contractor may request an appearance before the Administrative Reconsideration Panel to establish that all feasible means were used to meet such participation requirements. The decision of the Administrative Reconsideration Panel shall be administratively final. The injunction period will begin upon the Contractor's failure to request a hearing within the designated time frame or upon the Administrative Reconsideration Panel's decision to enjoin, as applicable.

5. Verification of DBE Participation and Imposed Damages

If the Contractor fails to comply with correctly completing and submitting any of the required documentation requested by this provision within the specified time frames, the Department will withhold payment of the monthly progress estimate until such time as the required submissions are received by VDOT. Where such failures to provide required submittals or documentation are repeated the Department will move to enjoin the Contractor and any prime contractual affiliates, as in the case of a joint venture, from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects until such submissions are received.

(q) Suspect Evidence of Criminal Behavior

In addition to the remedies described heretofore in this provision VDOT also exercises its rights with respect to the following remedies:

- Failure of a bidder, Contractor, or subcontractor to comply with the Virginia Department of Transportation Road and Bridge Specifications and these Special Provisions wherein there appears to be evidence of criminal conduct shall be referred to the Attorney General for the Commonwealth of Virginia and/or the FHWA Inspector General for criminal investigation and, if warranted prosecution.
- In appropriate cases, VDOT will bring to the attention of the U. S. Department of Transportation (USDOT) any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g., referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49CFR Part 31.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
**ELECTRONIC SUBMISSION OF PAYROLLS AND
DBE SUBCONTRACTOR PAYMENT FOR FEDERALLY FUNDED PROJECTS**

January 21, 2020

I. GENERAL REQUIREMENTS

The Contractor and all Subcontractors shall submit all certified payrolls and subcontractor payments, including those made to Disadvantaged Business Enterprises (DBEs), using the AASHTOWare Project Civil Rights and Labor (CRL) system in accordance with this specification. The term “subcontractor” shall include all vendors subject to FHWA-1273.

The electronic payroll submission and subcontractor payments through the CRL system replaces the paper submission of the C-57 and C-63 forms otherwise required by Sections 107.14(m) and 107.15 of the Specifications.

II. SYSTEM REQUIREMENTS

The CRL system is web based. The Contractor shall ensure compatibility with the CRL system as necessary to successfully execute the Work. The CRL system works with Internet Explorer 11 or Google Chrome and requires the ability to read, create, and edit spreadsheets in the .xlsx file format.

The Contractor and Subcontractors will be granted access after submitting forms ITD-35 and ITD-36 for each individual user who requires an account. Only those firms with a required contract in the system should submit the Request Access form. The software is configured so that each firm will only be able see their specific contract information. There will only be one single sign-on process for multiple application access within the Department.

VDOT will provide access and link and a log-in identification (ID) for the CRL system to designated employees of the Contractor and approved subcontractors entered into the system for the contract. The log-in ID and password are unique to the designated employee and must not be shared with other employees. There are no fees associated with accessing the system or to receive a login ID.

The low bidders on Contract awards will be contacted by the State Civil Rights Manager after letting to begin the process for accessing the CRL system for them and their subcontractors. The State Civil Rights Manager will provide all training for entry of certified payrolls and DBE subcontractor payments in CRL.

The CRL website is located at:

https://www.virginiadot.org/business/aashtoware_project_civil_rights_and_labor%E2%84%A2_crl_management_system.asp.

III. PROCEDURES

1. CERTIFIED PAYROLL & SUBCONTRACTOR DATA SUBMISSION FOR FEDERALLY FUNDED PROJECTS

The Contractor and all subcontractors shall use the CRL system to provide VDOT electronic certified payrolls. The Contractor shall ensure that all subcontractors submit their certified payrolls into the system electronically.

Electronic submittal of certified payrolls can be submitted using the following methods:

- Manually add, copy, or modify data into CRL;
- Import payroll data with the CRL payroll spreadsheet XML converter tool available at <https://xml.cloverleaf.net/spreadsheet/>
- Convert payroll system program data to Payroll XML and import it into the CRL system. Information on how to convert payroll program data to an XML file can be located at <https://xml.cloverleaf.net/resourcekit/>;
- The Contractor may send, on behalf of a subcontractor, payroll payment information based on a signed, certified paper payroll through the Electronica Proxy Payroll Process. Import payroll data with the CRL payroll spreadsheet XML converter tool available at <https://xml.cloverleaf.net/spreadsheet/>.

The District Civil Rights Manager or Engineer may require at any time, in writing, certified paper copies of the payrolls conforming to FHWA 1273 from any or all contractors working on the project.

2. DBE PAYMENT SUBMISSION REQUIREMENTS FOR FEDERALLY FUNDED PROJECTS

The Contractor shall post payment to DBE firms listed on their C-111 towards meeting their contract DBE goal per Federal DBE regulations. The Contractor shall submit, and shall require each Subcontractor to provide, payment amounts relative to all DBE involvement on the project during the life of the Contract in which participation occurs, and verification is available. The Contractor shall post payments to DBEs in CRL within 7 days after receipt of payment from the Department. Subcontractors shall post payments to DBEs in CRL within 7 days after receipt of payment from the Contractor.

The District Civil Rights Manager may require at any time, in writing, proof of payments from any or all subcontractors working on the project related to contractor DBE payments. The Contractor shall enter all payments made to all subcontractors into the Payment area of CRL for each estimate.

DBE Payments shall be entered only for those business entities that are being utilized in conjunction with performing a Commercial Useful Function (CUF).

More information about the CRL system can be located at <https://www.aashtowareproject.org/index.php>.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
BUILD AMERICA, BUY AMERICA ACT REQUIREMENTS FOR CONSTRUCTION MATERIALS

November 4, 2022

SECTION 107.03 FEDERAL AID PROVISIONS of the Specifications is amended to include the following:

In accordance with the provisions of the Build America, Buy America Act (BABA), Public Law, No. 117-58, §§ 70901-70953, and any implementing regulations or policies (hereinafter referred to together as "BABA Requirements"): except as otherwise specified, all construction materials that are to be permanently incorporated for use on federal aid projects (hereinafter be referred to as "BABA Construction Materials") shall be manufactured in the United States of America. Note that the provisions herein do not apply to iron and steel, which are addressed in another provision of the Contract.

BABA Construction Materials. Manufactured in the United States of America means that at least the final manufacturing process and the immediately preceding manufacturing stage for the construction materials, and any other stages in the manufacturing process that are specified in the BABA Requirements or FHWA guidance, all occurred in the United States.

BABA Construction Materials, as defined and designated in the BABA Requirements, include any article, material, or supply that is or consists primarily of:

- Non-ferrous metals;
- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass (including fiber optic glass);
- Lumber; or
- Drywall.

Any items that consist of at least one of the listed BABA Construction Materials combined together through a manufacturing process with another listed BABA Construction Material or with a non-listed item are considered to be "Manufactured Products" under BABA, not BABA Construction Materials. Therefore, the BABA requirements for "Manufactured Products" and FHWA guidance would apply.

The BABA Construction Materials requirements do not apply to: cement and cementitious materials; aggregates such as stone, sand, or gravel; aggregate binding agents (including asphalt cement) or additives; or any material composed of or derived from these items.

Waivers:

The process for receiving a waiver of BABA requirements for construction materials is provided at BABA § 70914(b) through (d), and any federal regulations adopted in accordance with this law. Other than any FHWA or other Federal agency waivers of general applicability that may be in effect, the Contractor shall not anticipate that any BABA provisions will be waived.

Certification of Compliance:

The Contractor is required to submit a Certificate of Compliance prior to incorporating any items into the project containing any of the above-listed BABA Construction Materials. This shall be accomplished by the Contractor submitting the appropriate Form C-76 Certificate of Compliance to the Department

when the items are delivered to the project site. The Certificate of Compliance will certify that the final manufacturing process and the immediately preceding manufacturing stage for the construction materials occurred in the United States. The certificate must be signed and dated by the Prime Contractor's Superintendent and include a BABA Requirements Submittal Number, which is simply the Contractor's project specific sequential numbering system that will allow the Contractor and Department to track the total number of certificates provided and the individual construction materials associated with each certificate.

Supporting Documentation:

Supporting documentation to demonstrate compliance with BABA provisions (such as manufacturer/supplier certifications, etc.) shall be organized by BABA Requirements Submittal Number, and shall be maintained by the Contractor and available for examination from the date of delivery until three years after project acceptance. The Contractor may maintain this documentation electronically or in paper format.

The Department or FHWA may review the Contractor's supporting documentation to verify compliance with the BABA Requirements for construction materials at any time upon request. Supporting documentation shall be provided within five business days of the request. The burden of proof to meet the BABA Requirements for construction materials rests with the Contractor. If the supporting documentation does not undeniably demonstrate to FHWA or the Department that the BABA Construction Materials identified in the Certificate of Compliance were produced in the United States, then such construction materials will be considered unacceptable and must be replaced at no cost to the Department, and if not replaced the Department, in addition to other rights and remedies, may have them replaced and deduct the cost of removal and replacement from any moneys due or that become due the Contractor in accordance with Section 106.10 of the Specifications.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
USE OF DOMESTIC MATERIAL

December 19, 2018

SECTION 102.05 PREPARATION OF BID of the Specifications is amended to include the following:

In accordance with the provisions of Section 635.410(b) of Title 23 CFR, hereinafter referred to as “Buy America”, except as otherwise specified, all iron and steel (including miscellaneous items such as fasteners, nuts, bolts and washers) to be permanently incorporated for use on federal aid projects shall be produced in the United States of America. This applies to any iron or steel item brought onto the project, regardless of the percentage of iron or steel that exists in the pay item or in the final form they take; however, electrical components (i.e., combination products such as signal controllers and similar products which are only sold as a unit) are not subject to Buy America provisions if the product as purchased by the Contractor is less than 50% steel and iron. “Produced in the United States of America” means all manufacturing processes occur in one of the 50 United States, the District of Columbia, Puerto Rico or in the territories and possessions of the United States. “Manufacturing processes” are defined as any process which alters or modifies the chemical content, physical size or shape, or final finish of iron or steel material (such as rolling, extruding, bending, machining, fabrication, grinding, drilling, finishing, or coating). For the purposes of satisfying this requirement “coating” is defined as the application of epoxy, galvanizing, painting or any other such process that protects or enhances the value of the material to which the coating is applied. Non-iron and non-steel materials used in the coating process do not need to be produced in the United States as long as the application of the coating occurred in the United States. The manufacturing process is considered complete when the resultant product is ready for use as an item in the project (e.g. fencing, posts, girders, pipe, manhole covers, etc.) or is incorporated as a component of a more complex product by means of further manufacturing. Final assembly of a product may occur outside of the United States of America provided no further manufacturing processes take place.

For the purposes of this provision, all steel or iron material meeting the criteria as produced in the United States of America will be considered as “Domestic Material.” All iron and steel items not meeting the criteria as produced in the United States of America will be considered “Non-Domestic Material.”

A minimal amount of “Non-Domestic” steel or iron material may be incorporated in the permanent work on a federal-aid contract provided that the cost of such materials or products does not exceed one-tenth of one percent of the Contract amount or \$2500, whichever is greater. The cost of the “Non-Domestic Material” is defined as its monetary value delivered to the job site and supported by invoices or bill of sale to the Contractor. This delivered-to-site cost must include transportation, assembly, installation and testing.

Buy America provisions do not apply to iron or steel products used temporarily in the construction of a project such as temporary sheet piling, temporary bridges, steel scaffolding, falsework or such temporary material or product or material that remains in place for the Contractor’s convenience.

Raw materials such as iron ore, pig iron, processed, pelletized and reduced iron ore, waste products (including scrap, that is, steel or iron no longer useful in its present form from old automobiles, machinery, pipe, railroad rail, or the like and steel trimmings from mills or product manufacturing) and other raw materials used in the production of steel and/or iron products may, however, be imported. Extracting, handling, or crushing the raw materials which are inherent to the transporting the materials for later use in the manufacturing process are exempt from Buy America.

Any items containing foreign source steel or iron billet shall be considered “Non-Domestic Materials.” Additionally, iron or steel ingots or billets produced in the United States, but shipped outside the United

States of America for any manufacturing process and returned for permanent use in a project shall be considered "Non-Domestic Materials."

Waivers:

The process for receiving a waiver for Buy America provisions is identified in 23 CFR 635.410(c). The Contractor shall not anticipate that any Buy America provisions will be waived.

Certification of Compliance:

The Contractor is required to submit a Certificate of Compliance prior to incorporating any items containing iron or steel items into the project. This shall be accomplished by the Contractor submitting the Form C-76 Certificate of Compliance to the Department when the items are delivered to the project site. The Certification of Compliance will certify whether the items are considered "Domestic Material" or "Non-Domestic Material" as referenced in this Special Provision. The certificate must be signed and dated by the Prime Contractor's Superintendent and include a Buy America Submittal Number. The Buy America Submittal Number is simply the Contractor's project specific sequential numbering system that will allow the Contractor and Department to track the total number of certificates provided and the individual items containing iron or steel associated with each certificate.

Supporting Documentation:

Supporting documentation to demonstrate compliance with Buy America provisions (such as mill test reports manufacturer/supplier certifications, etc.) shall be organized by Buy America Submittal Number and maintained by the Contractor from the date of delivery until three years after project acceptance. The Contractor may maintain this documentation electronically or in paper format.

The Department or FHWA may review the Contractor's supporting documentation to verify compliance with the Buy America provisions at any time. Supporting documentation shall be provided within five business days of the request. The burden of proof to meet the Buy America provisions rests with the Contractor. If the supporting documentation does not undeniably demonstrate to FHWA or the Department that the "Domestic Materials" identified in the Certificates of Compliance were produced in the United States of America, then the Department may deduct payment from moneys due the Contractor for the value of the iron and steel that did not meet the Buy America provisions.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
CHANGED CONDITIONS FOR LOCAL ASSISTANCE PROJECTS

April 29, 2019

I. GENERAL

This special provision specifies the process to be followed when conditions specified in the Contract differ from what is encountered during the prosecution of work except as provided elsewhere in the Contract.

II. DIFFERING SITE CONDITIONS

1. During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.
2. Upon written notification, the Engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment, excluding anticipated profits, will be made and the Contract modified in writing accordingly. The Engineer will notify the Contractor of the determination whether or not an adjustment of the Contract is warranted.
3. No contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice.
4. No contract adjustment will be allowed under this clause for any effects caused on unchanged work. (This provision may be omitted by the Department at its option.)

III. SUSPENSION OF WORK ORDERED BY THE ENGINEER

1. If the performance of all or any portion of the work is suspended or delayed by the Engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.
2. Upon receipt, the Engineer will evaluate the Contractor's request. If the Engineer agrees that the cost and/or time required for the performance of the Contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the Engineer will make an adjustment (excluding profit) and modify the Contract in writing accordingly. The Contractor will be notified of the Engineer's determination whether or not an adjustment of the Contract is warranted.
3. No contract adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time prescribed.

4. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

IV. SIGNIFICANT CHANGES IN THE CHARACTER OF WORK

1. The Engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the Contract nor release the surety, and the Contractor agrees to perform the work as altered.
2. If the alterations or changes in quantities significantly change the character of the work under the Contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the Contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and equitable.
3. If the alterations or changes in quantities do not significantly change the character of the work to be performed under the Contract, the altered work will be paid for as provided elsewhere in the Contract.
4. The term "significant change" shall be construed to apply only to the following circumstances:
 - A. When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or
 - B. When a major item of work, as defined elsewhere in the Contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
CPM PROGRESS SCHEDULE FOR CATEGORY III PROJECTS

March 1, 2011

Section 103.06(e) Progress Schedule of the Specifications is deleted and replaced by this provision.

Section 108.03 Progress Schedule of the Specifications is deleted and replaced by this provision.

For definitions of scheduling terms not defined herein, and guidelines on preparing and maintaining the Progress Schedule, refer to the *VDOT Post-Award Scheduling Guide*.

I. GENERAL REQUIREMENTS

This work shall consist of generating and maintaining a project Progress Schedule to aid the Contractor and the Department in planning and executing the Work. The Progress Schedule shall be used by the Contractor, the Department, and all involved parties to plan and schedule all work required to complete the project. The Progress Schedule shall also be used by the Department to monitor progress of the individual activities required to complete the project; as well as to assess the overall progress of the Work and to evaluate the effects of time-related changes on the project. The Progress Schedule shall consist of a Critical Path Method (CPM) Progress Schedule, Progress Schedule Narrative, and Progress Earnings Schedule submitted in accordance with the requirements of this provision.

The Contractor shall prepare and submit, for the Engineer's review and acceptance, a Progress Schedule to communicate the Contractor's intentions and proposed plan to accomplish the Work in accordance with the requirements of the Contract. The Progress Schedule shall depict the sequence in which the Contractor proposes to perform the Work and the dates on which the Contractor contemplates starting and completing all schedule activities required to complete the project. The Contractor shall maintain the Progress Schedule, at a minimum, monthly to ensure that it continues to represent the current status of the project and the Contractor's current work plan to complete the project.

The Contractor shall attend a Scheduling Conference with the Engineer no later than seven (7) calendar days prior to beginning the Work, with the exception of project start-up activities such as submittals, mobilization, surveying, construction access and signage, erosion and sedimentation controls, etc., as approved by the Engineer. The Scheduling Conference will be held to discuss the Contractor's overall plan to complete the Work and the detail work plan for the first ninety (90) calendar days of Work. The Scheduling Conference may be held in conjunction with the Pre-Construction Conference or at a separate meeting as mutually agreed to by the Contractor and the Engineer. The Contractor shall discuss his/her overall plan of operations concerning the Maintenance of Traffic (MOT)/Sequence of Construction or any proposed deviations from the phasing, staging, or sequence of construction as indicated on the Contract plans or as approved by the Engineer. During the Scheduling Conference key issues and project specific requirements necessary for the development of the Baseline Progress Schedule shall also be discussed. Such key issues shall include as applicable, but are not limited to key submittals, permits, construction access, right of way, environmental, utility, traffic or local events identified in the Contract Documents that may impact traffic; as well as other limitations to the Work or any known constraints or foreseeable issues that may impact the schedule. Such project specific requirements shall include as applicable, but are not limited to scheduling, phasing, sequencing, milestone(s), work to be performed by the Department or other previously identified involved parties; or any known or likely constructability issues relative to the Contract plans and specifications.

II. OVERVIEW OF THE VARIOUS REQUIRED PROGRESS SCHEDULE SUBMISSIONS

A. Preliminary Progress Schedule – At least two (2) business days prior to the Scheduling Conference, or as approved by the Engineer, the Contractor shall submit to the Engineer for review and acceptance a Preliminary Progress Schedule. At the Contractor's discretion, a complete detailed Baseline Progress Schedule for the entire project may be submitted in lieu of the Preliminary Progress Schedule. The Preliminary Progress Schedule submission shall consist of the following:

1. Preliminary Progress Schedule: The Preliminary Progress Schedule shall depict, at a detailed level, the Contractor's proposed sequence and start/finish dates for all activities scheduled for the first ninety (90) calendar days of work. It shall also include, as applicable, any milestones or work to be performed by sub-contractors, the Department, or third parties during the first ninety (90) calendar days of work. The Preliminary Progress Schedule shall also depict at a summary level, an outline of the overall plan, which shall show the proposed overall sequence and timing of the Work. The Preliminary Progress Schedule shall be prepared in accordance with Section IV (A).
2. Preliminary Progress Schedule Narrative: The Preliminary Progress Schedule Narrative shall describe the Contractor's detailed work plan for the first ninety (90) calendar days of work. The Preliminary Progress Schedule Narrative shall be prepared in accordance with Section IV (B).

Until the Baseline Progress Schedule is accepted by the Engineer, the Contractor shall submit an update of the Preliminary Progress Schedule monthly, within five (5) working days after the current data date or as approved by the Engineer. The updated Preliminary Progress Schedule shall show the actual progress of work completed to date and the current detailed schedule for accomplishing the work planned for the following ninety (90) calendar days of Work, as of the data date. It shall also show the summary level activities required to complete the remainder of the Work.

B. Baseline Progress Schedule – Within thirty (30) calendar days after the Notice to Proceed (NTP) date or as approved by the Engineer, the Contractor shall submit in its entirety, his/her Baseline Progress Schedule, to the Engineer for review and acceptance. The Baseline Progress Schedule submittal shall consist of the following:

1. Baseline Progress Schedule: The Baseline Progress Schedule shall represent the Contractor's initial detailed plan to accomplish the entire scope of Work in accordance with the Contract. The Baseline Progress Schedule shall be prepared based on the Critical Path Method (CPM) and shall depict in a time-scaled bar-chart plot, the sequence in which the Contractor proposes to perform the Work, the project critical path, and the dates on which the Contractor contemplates starting and completing the individual schedule activities required to complete the project. The Baseline Progress Schedule shall also depict the current status of the project and the Contractor's current plan to complete the remaining work, as of the Baseline Progress Schedule submittal date.

The Baseline Progress Schedule shall reflect a practicable work plan and logical progress of the Work as indicated in the Contract Documents or as approved by the Engineer. When preparing the schedule, the Contractor shall consider as applicable, all known or specified constraints or restrictions such as: holidays, seasonal, normal weather, traffic or previously identified local events that may impact traffic, utility, railroad, right-of-way, environmental, permits, or other limitations to the Work that will impact the schedule. The Baseline Progress Schedule shall be prepared in accordance with Section IV (A).

2. Baseline Progress Schedule Narrative: The Baseline Progress Schedule Narrative shall describe the Contractor's proposed overall work plan to complete the entire project as

reflected on the Baseline Progress Schedule. The Baseline Progress Schedule Narrative shall be prepared in accordance with Section IV (B).

3. Baseline Progress Earnings Schedule: The Baseline Progress Earnings Schedule shall indicate the Contractor's anticipated cumulative progress each month as of the Contractor's progress estimate date as defined in Section 109.08(a) of the Specifications. The anticipated cumulative progress shall be expressed as "Percent Complete" based on the anticipated total earnings to date relative to the Total Contract Value. The Baseline Progress Earnings Schedule shall reflect the anticipated progress of the Work as shown on the Baseline Progress Schedule and shall be prepared on the VDOT Form C-13C in accordance with the VDOT Post-Award Scheduling Guide. At the Contractor's discretion, the Progress Schedule may be cost-loaded, in which case, the Progress Earnings Schedule shall then be prepared and submitted using the VDOT Form C-13CPM.

The Baseline Progress Schedule will be reviewed by the Engineer for acceptance in accordance with Section VII. Upon acceptance by the Engineer, the Baseline Progress Schedule shall replace the Preliminary Progress Schedule. The accepted Baseline Progress Schedule shall henceforth become the project Schedule of Record (SOR). The SOR shall be defined as the currently accepted Baseline Progress Schedule. Until a subsequent Revised Progress Schedule is submitted and accepted, the accepted Baseline Progress Schedule shall remain the SOR against which all subsequent Progress Schedule Updates and progress will be compared. The SOR shall be used by the Engineer to assess the Contractor's schedule-based performance on the project.

- C. Progress Schedule Update** – The Contractor shall on a monthly basis submit for the Engineer's review and acceptance the Contractor's Progress Schedule Update within five (5) business days after the Contractor's progress estimate date or as approved by the Engineer. The Progress Schedule Update shall consist of the following:

1. Progress Schedule Update: The Progress Schedule Update shall depict the current status of the Work and the Contractor's current plan to complete the remaining work as of the data date. The Progress Schedule Update shall be prepared in accordance with Section IV (A).
2. Progress Schedule Update Narrative: The Progress Schedule Update Narrative shall describe the work performed since the previous update and the Contractor's current plan for accomplishing the remaining work. It shall also describe any progress deficiencies, schedule slippages, or time-related issues encountered; as well as any actions taken or proposed to avoid or mitigate the effects of the progress deficiencies, schedule slippages, or time-related issues. The Progress Schedule Update Narrative shall be prepared in accordance with Section IV (B).
3. Progress Earnings Schedule Update: The Progress Earnings Schedule Update shall depict the current status of the project by percent complete based on the actual total earnings to date relative to the Total Contract Value. The Progress Earnings Schedule Update shall show the actual monthly and cumulative earnings to date as reflected on the Contractor's payment estimate, any variance in percent complete relative to the SOR, and the projected earnings for the remaining payment periods. The Progress Earnings Schedule Update shall be prepared on the VDOT Form C-13C or as specified herein and in accordance with the VDOT Post-Award Scheduling Guide.

The Progress Schedule Update will be reviewed by the Engineer for acceptance in accordance with Section VII. Upon acceptance by the Engineer, the Progress Schedule Update shall replace any previous Progress Schedule Updates as the current update of the SOR; however, it shall not replace the SOR. The currently accepted Progress Schedule Update shall henceforth become the contemporaneous schedule with which to report the current status of the project, plan the remaining Work, and evaluate the effects of any time-related changes or delays on the remaining Work.

D. Revised Progress Schedule – When the current Progress Schedule or work plan deviates significantly from the SOR, the Contractor shall submit to the Engineer for review and acceptance a Revised Progress Schedule to represent the Contractor’s revised plan to complete the remaining work. Deviate significantly will be construed to mean deviations from the SOR resulting from schedule impacts or major changes in the Progress Schedule that alter the project critical path, Contract interim milestone(s), or project completion; or causes a major shift in the Progress Earnings Schedule. A Revised Progress Schedule will be required when:

1. The Engineer approves a Schedule Impact Analysis (SIA) for authorized or unanticipated changes in the Work or conditions that significantly impacts the Progress Schedule, as determined by the Engineer.
2. The Contractor proposes a different approach to his/her work plan that significantly impacts the Progress Schedule or the Engineer determines that the current Progress Schedule Update or Contractor’s current work plan deviates significantly from the SOR. Such deviations may include, but are not limited to major changes in the Contractor’s proposed phasing, general sequence, resource plan, means and methods, or durations. The Contractor may revise his/her Progress Schedule at any time, at his/her discretion; however, the Engineer will only consider accepting a Revised Progress Schedule submission for major changes that deviate significantly from the SOR.
3. The Engineer determines that progress of the Work is trending towards unsatisfactory, in accordance with Section VIII (C), and in the opinion of the Engineer, it is apparent that the progress deficiency will not result in an extension of the completion date of the project beyond the Contract time limit and a Recovery Plan is not required to correct the progress deficiency. In such cases, the Engineer will request a meeting with the Contractor to discuss the progress deficiency to determine the appropriate corrective action required.

The Revised Progress Schedule submission shall be based on the currently accepted Progress Schedule Update and shall be prepared and submitted in the form of a Baseline Progress Schedule as described in Section II (B). However, it shall reflect the current status of the project as of the submittal date, approved changes in the Work, and the proposed plan for completing the remaining work. The Revised Progress Schedule shall be submitted in lieu of a subsequent Progress Schedule Update unless directed otherwise by the Engineer. The Revised Progress Schedule will be reviewed by the Engineer for acceptance in accordance with Section VII. Upon acceptance by the Engineer, the Revised Progress Schedule shall henceforth replace the accepted Baseline Progress Schedule or any previously accepted Revised Progress Schedule as the SOR for the remainder of the project.

E. Final As-Built Progress Schedule – Within thirty (30) calendar days after final acceptance, the Contractor shall submit to the Engineer his/her Final As-built Progress Schedule. The Final As-built Progress Schedule shall show the actual start and finish dates for each activity in the schedule. The Contractor shall certify in writing that the Final As-built Progress Schedule accurately reflects the actual start and finish dates for all activities contained in the Progress Schedule. The Final As-built Progress Schedule shall be submitted in the form of a monthly Progress Schedule Update and shall represent the last Progress Schedule Update submission.

III. SCHEDULE IMPACT ANALYSIS (SIA) FOR CHANGES AND DELAYS

A. Changes, Delays, and Schedule Impacts – When changes in the Work that will impact the schedule are proposed or authorized by the Engineer, the Contractor shall submit for the Engineer’s review and approval, a Schedule Impact Analysis (SIA) to determine the impact of the change. Also, when the Contractor believes he is entitled to a time extension and/or additional compensation for a time-related impact that is attributable to a cause beyond the control of and without the fault, negligence, or responsibility of the Contractor or those for whom the Contractor is responsible, the Contractor shall submit for the Engineer’s review and approval, a SIA and all

available supporting data to substantiate the request for modification of the Contract. The Contractor's request and SIA shall be submitted in accordance with the following:

1. Impacts Due to Directed or Authorized Changes: When the Engineer issues a written order or authorizes a change in the Work in writing, the Contractor shall submit in writing within seven (7) calendar days of the Engineer's written direction or as required by the Engineer, a request for modification of the Contract, if the Contractor believes that additional time and/or compensation is required to perform the Work. Such changes in the Work may include, but are not limited to directed or authorized changes in accordance with the applicable portions of Sections 104.02, 108.05, and 109.05 of the Specifications. The Contractor shall submit along with his/her request a *prospective* Schedule Impact Analysis (SIA) to substantiate the request for modification of the Contract in accordance with this provision and the applicable portions of Sections 104.02, 108.05, and 109.05 of the Specifications.
2. Impacts Due to Unanticipated Changes or Delays: When the Contractor discovers or encounters previously unknown or unanticipated changes in the Work or conditions, or a delay event that he believes will impact progress of the Work or completion of the project, the Contractor shall notify the Engineer in writing within two (2) working days of such discovery or encounter. Such changes in the Work or conditions or delay events may include, but are not limited to unusually severe weather, extraordinary or catastrophic weather events, errors or omissions in the Contract Documents; or differing site conditions or utility delays in accordance with the applicable portions of Sections 104.03 and 105.08 of the Specifications.

The Contractor shall then gather all available pertinent information and data necessary to determine how such change in the Work or condition will impact progress of the Work or completion of the project. The Contractor and the Department shall promptly meet to evaluate the scope and potential impact of such change or condition to allow the Engineer to make a timely decision on how to proceed, as well as to determine how the impact of such change or condition can be avoided or mitigated.

The Engineer may direct the Contractor to submit a SIA prior to proceeding with the work affected by such change, condition, or delay, in which case the Contractor shall submit in writing within seven (7) calendar days after receipt of the Engineer's direction, a request for modification of the Contract and a *prospective* SIA to substantiate the request for modification of the Contract.

Otherwise, the Contractor shall submit in writing a request for modification of the Contract and a *contemporaneous* SIA to substantiate the request for modification of the Contract. The request for modification of the Contract and SIA shall be submitted within fourteen (14) calendar days of completion of the changed work or work directly impacted by such condition, or the cessation date of the delay event, or as approved by the Engineer.

3. Unresolved Impacts: When the Contractor believes he is entitled to a time extension and/or additional compensation for an unresolved impact to the Work that is attributable to a cause beyond the control of and without the fault, negligence, or responsibility of the Contractor or those for whom the Contractor is responsible, the Contractor shall submit for the Engineer's review and approval, a request for modification of the Contract and a *retrospective* SIA to substantiate the request for modification of the Contract. Such impacts may involve, but are not limited to changes authorized by either Force Account Work or Unilateral Work Order, or other changes for which the scope of the change or magnitude of the impact could not be determined or mutually agreed to at the time the change was authorized or the delay event or changed condition was encountered.

The Contractor's notice of a change, a subsequent meeting with the Engineer, or submittal of a request for modification of the Contract as defined herein, shall not constitute a notice of intent to file a claim as required by Section 105.19. *No part of this provision is intended to alter, replace, or*

supersede Section 105.19 of the Specifications. The Contractor must adhere to Section 105.19 as well as this provision to preserve their rights to file a claim.

B. Schedule Impact Analysis (SIA) – The SIA submission shall include a SIA schedule and a written SIA statement as well as supporting data and such information necessary for the Department to make an adequate and timely evaluation of any time-related request received from the Contractor for modification of the Contract. The SIA submission shall consist of the following:

1. A SIA schedule, as specified herein, which shall depict the schedule impact of the change in the Work or condition or delay event based on the currently accepted Progress Schedule Update, submitted prior to the earlier of the date the change in the Work was authorized or the changed condition or delay event was encountered. If the most recently submitted Progress Schedule Update is unacceptable, then the Engineer will evaluate the request based on the previously accepted Progress Schedule Update. In which case, the Contractor shall update the previously accepted Progress Schedule Update to show the actual progress of the Work to date as of the earlier of the date the change in the Work was authorized or the changed condition or delay event was encountered. The SIA schedule shall:
 - a) Be based on the “Time Impact Analysis (TIA)” or “Contemporaneous Schedule Analysis” method as determined by the Engineer, to determine the status of the currently accepted Progress Schedule Update before and after the change in the Work or condition or delay event.
 - b) Show a fragnet (fragmentary network of added or changed activities) representing the added work, changed work or condition, or delay event(s). The fragnet activities shall be logically linked to the affected activities to show the direct impact on the work.
 - c) Show the current status of the completed and on-going activities as of the date the change in the Work was authorized or the changed condition was encountered or the delay event started.
 - d) Depict the schedule impact by showing a comparison between the impacted Progress Schedule Update and the most recently accepted Progress Schedule Update with a data date closest to and prior to the earlier of the date the change in the Work was authorized or the changed condition or delay event was encountered.
 - e) Depict the overall impact on the project critical path, Contract interim milestone(s), other significant dates, and the Contract fixed completion date, as applicable.
2. A written SIA statement to:
 - a) Describe the type, cause, and scope of the added work, changed work or condition, or delay event.
 - b) Provide sequence and timing of events and/or actions by all involved parties relating to the change or delay.
 - c) Describe the particular operations affected as well as identify by Activity ID and Activity Name the activities that are directly impacted.
 - d) Describe the impact on the critical path, total float, Contract interim milestone(s), other significant dates, or the Contract fixed completion date, as applicable.
 - e) Include a comparative analysis report relative to the currently accepted Progress Schedule Update to identify all changes made to the impacted Progress Schedule.
 - f) Identify any actions taken and/or needed to avoid or mitigate the delay or the effects of the delay.

Approval or rejection of the SIA by Engineer shall be made within ten (10) business days after receipt of the SIA, unless subsequent meetings and negotiations are necessary, as determined by the Engineer. Upon approval by the Engineer, the Contractor shall incorporate the SIA into the Progress Schedule and shall submit the impacted Progress Schedule as a Progress Schedule Update or Revised Progress Schedule as directed by the Engineer. If appropriate, the approved SIA shall be used to substantiate any request for a time extension or time-related damages or additional compensations, in accordance with the applicable portions of Sections 104.02, 104.03, 105.08, 108.04, and 109.05 of the Specifications.

IV. DETAILED REQUIREMENTS FOR PROGRESS SCHEDULE SUBMISSIONS

A. Progress Schedule – The Progress Schedule shall conform to the following requirements:

1. Software Compatibility Requirements: The Contractor shall submit his/her Progress Schedule in the Primavera proprietary exchange format (XER) to ensure compatibility with the Department's scheduling software system. The Department's scheduling software system is the latest version of Primavera's Project Management software (currently P6 version 6.2). Compatible shall mean that the Contractor-provided electronic file versions of the schedule can be imported into the Department's scheduling software system with no modifications, preparation or adjustments. For projects that are included in a multi-contract mega-project, the Contractor shall prepare and maintain his/her Progress Schedule in the Department's scheduling software system. At the Contractor's request, secured access via the internet may be granted to allow the Contractor to develop and maintain his/her Progress Schedule in the Department's scheduling software system. The Progress Schedule shall be submitted in accordance with Section V.
2. Software Settings: If Primavera (P6) or equivalent scheduling software with similar features is used to prepare the Progress Schedule, the Contractor shall define the project attributes and schedule calculation options in accordance with the software settings detail requirements defined in the VDOT Post-award Scheduling Guide.
3. Work Breakdown Structure (WBS): The Baseline Progress Schedule shall be organized using a multi-level hierarchical Work Breakdown Structure (WBS). The Contractor shall define a project WBS to allow for a hierarchical organization and breakdown of the Work based on the Contractor's approach and in accordance with the phasing/sequence of construction and traffic control plans as specified in the Contract or as approved by the Engineer.
4. Activity Codes: The Contractor shall define and assign as appropriate, activity codes to allow for filtering, grouping, and sorting of activities by Responsibility, Phase, Stage, Feature of Work, Area, Location, Work Type, Crew, and Contract Modification activity codes to facilitate review and use of the Progress Schedule. If Primavera (P6) or equivalent scheduling software with similar features is used to prepare the Progress Schedule, the Contractor shall define activity codes using the project-specific activity codes option. Use of global activity codes shall not be allowed and shall be grounds for rejecting the Progress Schedule submission. Project-specific activity codes shall be defined and assigned in accordance with the detail requirements defined in the VDOT Post-award Scheduling Guide.
5. Calendars: The Contractor shall define and assign as appropriate, project-specific calendar to each activity to indicate when the activity can be performed. If Primavera (P6) or equivalent scheduling software with similar features is used to prepare the Progress Schedule, the Contractor shall define the project calendars using the project-specific option. The project calendars shall indicate, as applicable, the standard working hours per day, standard working days per week, and non-work days such as week-ends, holidays, weather days, local events, environmental, time-of-year restrictions, etc. Use of global calendars shall not be allowed and shall be grounds for rejecting the Progress Schedule submission. The project-specific

calendars shall be defined in accordance with the detail requirements defined in the VDOT Post-award Scheduling Guide.

6. Level of Detail: The Contractor shall develop the Progress Schedule to an appropriate level of detail that allows for the formation of a reasonable critical path. The Progress Schedule shall show as applicable, Contract milestones and other key milestones for significant project events. The Progress Schedule shall also show, as applicable, administrative, procurement, MOT, work to be performed by other involved parties, discrete work activities to indicate the type of operation and location of the work, and other necessary time-based tasks required for completion of the project. The Work shall be sub-divided as practical, to such a level that the activity durations for on-site work excluding, activities whose durations are specified elsewhere in the Contract, are twenty (20) workdays or less. Longer durations may be allowed, as approved by the Engineer, for activities that typically span long periods of time such as fabrication and delivery of materials, administrative, MOT, or other such level of effort activities.
7. Network Logic: The Progress Schedule network logic shall be based on the Precedence Diagram Method (PDM) and shall show the order and inter-dependence of the activities and the sequence in which the Contractor proposes to accomplish the Work. The Contractor shall apply the Critical Path Method (CPM) of network calculation to generate the Progress Schedule. The project critical path shall be based on the "Longest Path". The Progress Schedule network logic shall be developed in accordance with the detail requirements defined in the VDOT Post-award Scheduling Guide.
8. Schedule Constraints: All Contract milestone activities shall be constrained, as applicable, with a "Start On or After" (Early Start) date or "Finish On or Before" (Late Finish) date equal to the "Start No Earlier Than" or "Must Finish By" date specified in the Contract, except as specified below. The Contractor's use of schedule constraints with the exception of the specific requirements defined below is not allowed, unless approved by the Engineer. The use of schedule constraints such as "Start On" or "Finish On" for the purpose of manipulating float or the use of schedule constraints that violate network logic such "Mandatory Start" or "Mandatory Finish" will not be allowed. When a schedule constraint is used, other than the schedule constraints specified herein, the Contractor shall provide explanation for the use of such constraint in the Progress Schedule or Progress Schedule Narrative.
9. Data Date: The data date is defined as the current status date of the Progress Schedule, which defines the start date for the scheduled remaining Work. All Progress Schedule submissions shall be calculated using an appropriate data date to indicate the status of the project at the time the Progress Schedule is submitted.
 - a) For the Preliminary, Baseline, or subsequent Revised Progress Schedule submission, the data date shall be no more than five (5) business days prior to the submittal date.
 - b) For the monthly Progress Schedule Update submissions the data date shall be the Contractor's monthly progress estimate date as defined in Section 109.08(a) of the Specifications.
10. Total Float: This section is intended to apply only to considerations of Contract time extension requests relative to available total float. Considerations for other time-related impacts, if any, are covered in other Sections of the Specifications. Any request for a Contract time extension will be evaluated, in accordance with Section 108.04, based on the critical path and available total float. Total float is defined as the amount of time, typically expressed in days (number of workdays or calendar days depending on the assigned calendar), that an activity can be delayed without extending the completion date of a related Contract interim milestone or the project, as applicable. Except as specified herein, total float shall be calculated, as

applicable, relative to a constrained Contract interim milestone date or the Contract fixed completion date specified in the Contract or a subsequent Work Order.

With the exception of A+B based Contracts, any float available in the Progress Schedule, at any time, shall be considered project float and is not for the exclusive use or benefit of either the Department or the Contractor. It shall be understood by the Contractor and the Department that float is a shared commodity and either party has the right to full use of any available float. Until such time that all available float is depleted, the project float shall be used responsibly in the best interest of the project and in a manner that best serves the timely completion of the Work by either a specified Contract interim milestone or the Contract fixed completion date, as applicable.

For A+B based Contracts for which the Contractor bids the Contract time and/or Contract interim milestone(s), any float on a critical activity or activities on the critical path shall belong to the Contractor and any float on non-critical activities or activities not on the critical path shall belong to the project and shall be considered available project float for use by either the Department or the Contractor for the benefit of the project.

The Contractor shall not modify the Progress Schedule at any time for the purpose of manipulating float. Negative float conditions will not be allowed in the Preliminary, Baseline, or Revised Progress Schedule.

11. Progress Schedule Update: The Progress Schedule Update shall reflect the actual status of the Work and the current plan to complete the remaining work as of the current data date. It shall show the actual start/finish dates for each completed activity and the actual start date, remaining duration, and progress (percent complete) of each on-going activity. The Progress Schedule Update shall allow for an accurate determination of progress of completed and on-going work based on total actual cost (earnings) to date; as well as an accurate projection of the anticipated monthly earnings for the remaining work based on remaining cost. The Progress Schedule Update shall be based on the most recently accepted Progress Schedule and shall be prepared in accordance with the detail requirements defined in the VDOT Post-award Scheduling Guide.

B. Progress Schedule Narrative – As specified in Section II of this provision, a Baseline Progress Schedule Narrative shall be submitted with the Baseline Progress Schedule submission and a Progress Schedule Update Narrative shall be submitted with the Progress Schedule Update submission. The Progress Schedule Narrative shall be prepared in accordance with the following:

1. Baseline Progress Schedule Narrative: The Baseline Progress Schedule Narrative shall include the following written information:

- a) The Contractor's overall plan describing:

- i) The proposed overall sequence of construction, including where the work will begin and how the work will progress;
- ii) The methodology, scheduling assumptions, and general procedures for completing each major feature of Work;
- iii) A list of the major resources (number and type of crews and equipment) required to complete the project as scheduled. For early completion schedules (projects with an early completion interim milestone provision or projects with scheduled completion dates earlier than the Contract specified date by thirty (30) calendar days or more), the Contractor shall also provide a written resource plan for the major operations to demonstrate the Contractor's ability and commitment to provide resources at the level required to complete the work within the timeframes shown in the Progress Schedule;

- iv) Anticipated daily production rates for each major operation.
 - b) A description of the project critical path.
 - c) A listing of the major milestone dates, including as applicable, Contract interim milestone(s), major traffic switches, start/finish milestones for each phase or stage of work, or related work to be performed by the Department or other involved parties.
 - d) A log identifying the schedule constraints used in the Progress Schedule and reason for using each constraint.
 - e) A description of the calendar(s) used in the Progress Schedule to indicate the Calendar ID, number of work days per week, number of shifts per day, and number of hours per day as well as the anticipated number of non-working days per month for each calendar with considerations, as applicable, for holidays, normal weather conditions; as well as for seasonal or other known or specified constraints and restrictions (i.e. traffic, local events, environmental, permits, utility, etc.).
 - f) A description of any known problems or anticipated issues that may impact the schedule; and any actions taken, proposed, or needed to correct the problems.
2. Progress Schedule Update Narrative: The Progress Schedule Update Narrative shall include the following written information:
- a) A description of the current status of the project in terms of the current actual percent complete by total earnings relative to the SOR planned percent complete; as well as the scheduled completion dates of the interim milestone(s) and project completion.
 - b) A description of any deviations from scheduled performance in terms of the scheduled completion dates of the interim milestone(s) and project completion since the previous schedule submission, including a statement explaining why any of the schedule milestone date(s) is forecast to occur after the specified date(s).
 - c) A description of the work performed since the previous Progress Schedule submission and any deviations from the work scheduled.
 - d) A description of major changes in the Contractor's work plan in terms of sequence of construction, shifts, manpower, equipment, or materials.
 - e) A description of any deviations in project critical path since the previous Progress Schedule submission.
 - f) A listing of adverse weather dates and number of days lost this period due to adverse weather or conditions resulting from adverse weather. List the activities affected and any impacts to the critical path.
 - g) A description of problems encountered or anticipated since the previous Progress Schedule submission, including an explanation of any corrective actions taken or required to be taken.
 - h) A description of work planned for the next update period and actions to be taken by the Department or other involved parties.

V. REPORTING AND SUBMITTAL REQUIREMENTS FOR PROGRESS SCHEDULE SUBMISSIONS

Unless directed otherwise by the Engineer, the Contractor shall submit for each Progress Schedule submission the following submittal items. Each electronic file submittal shall have a unique file name

prefixed by the Contract ID to identify the Contract, submission type and order of submission, and date of submittal (e.g. C00012345B01_B-1_12-30-10.xer, C00012345B01_U-1_1-10-11.xer, etc.). The Progress Schedule submittals shall include:

1. A transmittal letter to the Engineer, identifying the date of submittal and which Progress Schedule is being submitted for review.
2. Two (2) sets of data compact disks (CD) containing the electronic working export file copy of the Progress Schedule in an "XER" file format in version 6.2 or lower. Each CD shall be labeled to indicate the Contract ID, type of submission, filename, and submittal date.
3. Two (2) sets of paper copies of the following schedule reports:
 - a) Schedule calculation log.
 - b) A legible time-scaled bar-chart plot of the Progress Schedule organized by WBS and sorted by early start to show for each activity: the Activity ID, Activity Name, Original Duration, Remaining Duration, Start and Finish dates, Activity Percent Complete, and Total Float. The bar-chart plot shall identify the project critical path (longest path).
4. Electronic file copies by email of the following:
 - a) A working export file of the Progress Schedule in an "XER" file format in version 6.2 or lower.
 - b) Electronic "PDF" copy of the tabular Predecessor/Successor report sorted in ascending order by Activity ID to show the following:
 - i) Activity ID;
 - ii) Activity Name;
 - iii) Original Duration;
 - iv) Remaining Duration;
 - v) Early Start;
 - vi) Early Finish;
 - vii) Late Start;
 - viii) Late Finish;
 - ix) Total Float;
 - x) Critical (Yes or No);
 - xi) Predecessors: Activity ID, Activity Name, Early Start, Early Finish, Relationship Type, Lag, Driving (Yes or No), Constraint, and Constraint Date;
 - xii) Successors: Activity ID, Activity Name, Early Start, Early Finish, Relationship Type, Lag, Driving (Yes or No), Constraint, and Constraint Date.
 - c) Electronic "PDF" copy of the Progress Schedule Narrative.
 - d) Electronic "PDF" copy of the Progress Earnings Schedule S-Curve.
 - e) A working file of the Progress Earnings Schedule (VDOT Form C-13C).

VI. FAILURE TO SUBMIT PROGRESS SCHEDULES

The Engineer will take necessary actions in accordance with the following for failure on the part of the Contractor to submit the required Progress Schedules:

1. If the Contractor fails to submit his/her complete Preliminary Progress Schedule at least two (2) business days prior to the Scheduling Conference, the Contractor shall not commence Work, with the exception of project start-up activities such as submittals, mobilization, surveying, construction access and signage, erosion and sedimentation controls, etc., until after seven (7) calendar days from the date the Contractor submits his/her complete Preliminary Progress Schedule, unless otherwise approved in writing by the Engineer.
2. If the Contractor fails to submit his/her complete Baseline Progress Schedule within thirty (30) calendar days after the NTP date or as approved by the Engineer, the Engineer will delay approval of the Contractor's next monthly progress estimate following the due date of the Baseline Progress Schedule until such time as the Contractor has satisfied the submittal requirements.
3. If the Progress Schedule submission is deemed unacceptable by the Engineer; and the Contractor fails to submit an acceptable Progress Schedule within fourteen (14) calendar days after the Engineer's request, the Engineer will delay approval of the Contractor's next monthly progress estimate following the due date of the Progress Schedule until such time as the Contractor has satisfied the submittal requirements.
4. If the Contractor fails to provide a Progress Schedule Update or if a Revised Progress Schedule is required as specified herein and the Contractor fails to provide such a Progress Schedule, the Engineer will delay approval of the Contractor's next monthly progress estimate following the due date of the Progress Schedule until such time as the Contractor has satisfied the submittal requirements.
5. If the Contractor fails to provide an acceptable Final As-built Progress Schedule as specified, the Engineer will delay approval for payment of the Contractor's final progress estimate until such time as the Contractor has satisfied the submittal requirements.

Please note: Delays resulting from the Contractor's failure to provide the Progress Schedule in accordance with the requirements set forth herein will not be considered just cause for extension of the Contract time limit or for additional compensation.

VII. REVIEW AND ACCEPTANCE

The Engineer will review all Progress Schedule submissions within fourteen (14) calendar days of receipt of the Contractor's complete submittal, unless subsequent review meetings are necessary, as determined by the Engineer. The Engineer's review for acceptance will not commence until all required submittal items and schedule information as defined herein are provided. Acceptance by the Engineer will be based only on completeness and conformance with the requirements of the Contract.

If the Contractor's Progress Schedule submission is deemed to be acceptable, the Engineer will respond with a written notice of acceptance, which may include comments or minor concerns on the submission and/or a request for clarification or justification. When the Engineer's response include any comments, concerns, or request for clarification or justification, the Contractor shall respond accordingly within seven (7) calendar days of receipt of the Engineer's response. The Contractor's response may include a resubmission of the Progress Schedule to address the Engineer's comments or concerns or provide clarification or justification accordingly.

If the Contractor's Progress Schedule submission is deemed to be unacceptable, the Engineer will issue a written notification of non-conformance, which will include a request for resubmission and comments describing the deficiencies prompting the Engineer's decision. At the Engineer's discretion, the Contractor may be required to attend a schedule review meeting to discuss the issues prompting the Engineer's decision or to facilitate review and acceptance of the Progress Schedule submission.

When the Progress Schedule submission is deemed by the Engineer to be unacceptable, the Contractor shall revise and re-submit the Progress Schedule submission accordingly, within seven (7) calendar days of receipt of the Engineer's response.

Review and acceptance by the Engineer will not constitute a waiver of any Contract requirements and will in no way assign responsibilities of the work plan, scheduling assumptions, and validity of the schedule to the Department. Failure of the Contractor to include in the Progress Schedule any element of work required by the Contract for timely completion of the project will not excuse the Contractor from completing the Work within the Contract specified interim milestone(s) or the Contract time limit, as applicable.

VIII. MONITORING THE WORK AND ASSESSING PROGRESS

- A. Monitoring The Work** – The Engineer will monitor the Work regularly to identify deviations from the Contractor's scheduled performance relative to the SOR. The Contractor shall notify the Engineer at least two (2) working days in advance of any changes in the Contractor's planned operations or critical stage work requiring Department oversight or inspection. The Contractor shall attend a monthly progress schedule meeting with the Engineer on a day agreed to by the Contractor and the Engineer. The Contractor shall furnish his/her detailed 30-day look-ahead schedule at the progress meeting and shall be prepared to discuss the current status of the Work and planned operations for the following thirty (30) calendar days. The 30-day look-ahead schedule shall be based on the Contractor's current monthly Progress Schedule Update.
- B. Progress Evaluation** – Progress will be evaluated by the Engineer at the time of the monthly progress estimate relative to the SOR. The Contractor's actual progress will be considered unsatisfactory if any one of the following conditions occurs:
1. The actual total earnings to date percentage for work completed, based on the Contractor's progress payment estimate, falls behind the SOR planned cumulative earnings percentage by more than ten (10) percentage points. If the Progress Earnings Schedule is based on a cost-loaded Progress Schedule, then the unsatisfactory progress threshold will be based on falling behind the SOR planned cumulative late dates earnings percentage. Payments for Stored Materials, Materials on Hand, or Adjustments (asphalt, fuel, etc.) shall not be included in the actual progress earnings.
 2. The calculated completion date of a Contract interim milestone is later than the specified completion date by more than fourteen (14) calendar days.
 3. The calculated project completion date is later than the Contract fixed completion date by more than thirty (30) calendar days.
- C. Progress Deficiency and Schedule Slippage** – When the Contractor's actual progress is trending toward unsatisfactory status, the Engineer will request a meeting with the Contractor to discuss any actions taken or required by the Contractor to reverse this trend and to correct the progress deficiency or schedule slippage.

When the Contractor's actual progress is deemed unsatisfactory as defined by any one of the conditions listed under **Progress Evaluation** of this provision, the Engineer will issue a written notice of unsatisfactory performance to advise the Contractor that five (5) percent retainage of the monthly progress estimate is being withheld and will continue to be withheld as described in Section 109.08(c), for each month the Contractor's actual progress is determined to be unsatisfactory, unless there is a pending decision by the Engineer on a request for modification of the Contract for which the Contractor has previously provided documentation as required.

When the Contractor fails to respond with good faith efforts as described herein to restore satisfactory progress, the Engineer will issue a notice to indicate that he may recommend the Contractor be temporarily disqualified from bidding on Contracts with the Department as described in Section 102.08 of the Specifications, if progress remains unsatisfactory at the time of preparation of the next monthly progress estimate following the Engineer's notice. Prior to recommendation for removal from the list of pre-qualified bidders, the Engineer will allow the Contractor fourteen (14) calendar days from the date of the unsatisfactory performance notice to respond. Such "good faith" efforts shall be provided in sufficient detail to allow the Engineer to fully evaluate the Contractor's plans for recovery. As an example of good faith efforts, the Contractor may submit to the Engineer, a proposed recovery plan in the form of a Progress Schedule Update and a written statement to describe the Contractor's proposed actions and timeframe to correct the progress deficiency or schedule slippage. The Contractor may also submit to the Engineer a written explanation and supporting documentation to establish that such delinquency was attributable to conditions beyond his/her control. Any schedule adjustments resulting from a recovery plan will be reviewed in accordance with Section VII, but the modified Progress Schedule Update shall not replace the current SOR.

When the Engineer determines the Contractor's progress is again satisfactory the five (5) percent retainage previously withheld will be released to the Contractor in accordance with the provisions of Section 109.08 (c) of the Specifications.

If the Contractor is temporarily disqualified from bidding on Contracts with the Department, the Contractor will not be reinstated until either the Engineer deems that his/her progress has improved to the extent that the Work can be completed within the Contract time limit or the project has received final acceptance in accordance with the provisions of Section 108.09.

IX. MEASUREMENT AND PAYMENT

Required Progress Schedule submissions will be measured and paid for in accordance with the following:

A. Basis of Payment – Progress payments will be made in accordance with the following:

1. Progress payments for the Baseline Progress Schedule pay item will be made as follows:

- a) A twenty-five (25) percent of the Contract bid item lump sum amount will be made upon acceptance of the Preliminary Progress Schedule submission.
- b) A seventy-five (75) percent of the Contract bid item lump sum amount will be made upon acceptance of the Baseline Progress Schedule submission. When a Baseline Progress Schedule is provided in lieu of a Preliminary Progress Schedule, a payment of one hundred (100) percent of the Contract bid item lump sum amount will be made upon acceptance of the Baseline Progress Schedule submission.

2. Progress payments for the Progress Schedule Update pay item will be made as follows:

- a) Progress payments of one each (1 EA) at the Contract bid item unit price will be made upon acceptance of the Progress Schedule Update submission.
- b) A Revised Progress Schedule may be required in lieu of and paid for upon acceptance as a Progress Schedule Update, as determined by the Engineer. When a Revised Progress Schedule is required by the Engineer, in addition to a regular Progress Schedule Update submission, progress payments of one each (1 EA) at the Contract bid item unit price will be made under the pay item for Progress Schedule Updates upon acceptance of the Revised Progress Schedule submission.

- c) Upon approval, the SIA shall be incorporated into the Progress Schedule Update or Revised Progress Schedule, as directed by the Engineer, and paid for as a Progress Schedule Update. When a SIA is required in addition to a regular Progress Schedule Update submission, progress payment of one each (1 EA) at the Contract bid item unit price will be made upon approval under the pay item for Progress Schedule Update.
 - d) Progress payments of one each (1 EA) at the Contract unit price will be made upon acceptance of the Final As-built Schedule submission.
3. No separate measurement and payment will be made for attendance of the Scheduling Conference, progress meetings or other schedule related meetings. All costs associated with attendance of the scheduling meetings will be considered incidental.
- B. Payment Items** – Payments for all associated costs to attend schedule meetings, prepare, update, revise, and/or furnish the Progress Schedule will be made under the following pay items:

Pay Item	Pay Unit
25565 - Baseline Progress Schedule	Lump Sum
25567 - Progress Schedule Update	Each

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
BIORETENTION SOIL MIXTURE

January 2, 2014

I. DESCRIPTION

This work shall consist of furnishing and applying bioretention soil media and preparing planting bed in accordance with the requirements of these specifications and in conformity to the depths and limits shown on the plans or as established by the Engineer.

II. MATERIALS

Soil for Bioretention Basins

Soil media for bioretention basins shall have a USDA Classification of Loamy Sand. The soil media shall consist of 76 percent granular sand, 20 percent topsoil, and 4 percent organic matter originating from composted yard waste. Moisture content shall be approximately 15 percent with a pH in the range of 6.0-7.0. Particle size D50 shall be 0.02 Inch and the maximum particle size shall be 0.2 Inch. Soil media may be mixed on-site, if a suitable site for manipulation of materials is available within the right-of-way, or purchased pre-mixed from an off-site source approved by the Engineer.

- Topsoil shall conform to the requirements of Section 244. The clay content of topsoil shall not exceed 20 percent.
- Sand shall be granular sand conforming to Section 202.03 of the Specifications for Grading A Fine Aggregate.
- Composted Yard Waste shall conform to the requirements of Section 244.

III. PROCEDURES

Materials shall be tested in accordance with the plans and materials reports submitted to the Engineer for review prior to installation. Approved materials shall be thoroughly mixed prior to installation. Installation may then proceed as follows:

- Areas to receive bioretention media shall be excavated in accordance with the plans, details and these specifications.
- Bottom and sides of excavated areas shall be scarified with excavating equipment having a toothed bucket.
- Following installation of perforated pipe and aggregate, bioretention media shall be placed in 12" lifts and lightly compacted so as not to damage perforated pipe. Bioretention soil shall be brought to 2" below final grade along the bottom plane of the basin.
- Following installation of bioretention media, planting bed area shall be prepared by adding 2" depth composted yard waste and tilling in to bioretention soil mixture to a depth of 4" to 6" depth and grading and lightly compacting to achieve final grade.

Following bed preparation the entire bioretention area shall be covered with EC-2 then topsoiled and seeded as shown on the BMP Detail sheet.

- Bioretention soil mixture and prepared planting bed mixture excavated for planting trees and shrubs, etc., may be used as backfill for planting pits.
- The planting bed area shall be neatly edged with a 3" depth "V" cut edge according to the plans and detailed drawings.
- Bioretention plantings shall be mulched immediately following planting.

IV. MEASUREMENT AND PAYMENT

Bioretention Soil Mixture will be measured in cubic yards and will be paid for at the contract unit price per cubic yard of material necessary to backfill the excavated bioretention area to the required depth, width, and grades specified. This price shall include installing and lightly compacting the soil mixture, preparing plant beds with additional materials, tilling, raking, edging; and all labor, tools and equipment and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Pay Unit
Bioretention Soil Mixture	Cubic yard

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS FOR
BIORETENTION FACILITIES

January 2, 2014

I. DESCRIPTION

This work shall consist of construction and maintenance of bioretention facilities with the requirements herein and in conformity with the lines, grades, and thickness as shown on the plans and/or as directed by the Engineer.

II. PROCEDURES

The Contractor shall have a meeting with the site inspector prior to starting work on the bioretention facilities. At that time, the Contractor shall prepare a customized maintenance schedule for each bioretention facility. Items to be included in the schedule are frequency of mowing grass, erosion repair, removal of invasive plants, trash removal and checking the functionality of the facility. Contractor shall verify the boundaries of the contributing drainage area and the actual (as-built) inlet elevations to ensure they conform to original design. Since other subcontractors may be responsible for constructing portions of the site, subtle differences in site grading, drainage and paving elevations may be observed that can produce hydraulically important differences for the proposed bioretention area. The Contractor and the Engineer should clearly communicate, in writing, any needed modifications determined during the preconstruction meeting.

Construction of the bioretention area will only begin after the entire contributing drainage area has been stabilized with vegetation (or final pavement). It may be necessary to block certain curb or other inlets while the bioretention area is being constructed. The proposed site shall be checked for any existing utilities in that area prior to any excavation.

Temporary E&S controls are needed during construction of the bioretention area to divert stormwater away from the bioretention area until it is completed. Special protection measures such as erosion control fabrics may be needed to protect vulnerable side slopes from erosion during the construction process.

During excavation, use relatively light, tracked equipment to avoid compaction of the basin floor.

Prior to installation of gravel and drain system, Contractor shall schedule a meeting with site inspector to review drainage connections to structures, subgrade conditions, etc. Contractor shall be responsible for photo-documenting the site and construction progress.

Place low permeability liner on the sides and bottom of the bioretention area with a 12-inch minimum overlap. Place the appropriate depth of #57 stone on the bottom, install the perforated underdrain pipe along with cleanout pipes, and pack #57 stone to 3 inches above the underdrain pipe. Place at the appropriate depth of filter medium on top of no. 57 medium.

Prior to installation of soil media, Contractor shall verify underdrain locations and inverts, depth of gravel media installation and photo-document gravel sump, underdrain layout and choker layer installation.

Prior to delivery of soil filter media on site, provide evidence to site inspector that the soil supplier has provided appropriate testing of the media and proper batching and quality control procedures to assure a well blended mix meeting the design specifications. Failure to deliver the appropriate testing, verification and vendor certification may result in rejection of the material prior to or after installation, and replacement at the Contractor's expense.

Obtain bioretention soil media from an approved vendor, and store it on an adjacent impervious area or plastic sheeting. Apply 3-ft strip of geotextile over gravel choker layer centered on perforated underdrains, apply pea gravel layer and sand layer, and then apply the bioretention soil media in 8 to 12-inch lifts until the desired top elevation of the bioretention area is achieved. Wait for seven days to check for settlement, and add additional media, as needed, to achieve the design elevation. After placement, the media shall be tested to determine the actual flow rate.

Prepare planting holes for any trees and shrubs, install vegetation and mulch if required, and water the vegetation accordingly.

Install the plant materials as shown in the landscaping plan, and water them during weeks of no rain for the first two months. Conduct the final construction inspection.

III. MATERIALS

Soil Media - For Bioretention soil material see special provision for bio-retention soil media.

Underdrain, Cleanouts, and Observation Wells - Underdrains shall be 6-inch rigid schedule 40 PVC pipe conforming to the requirements of ASTM F758, Type Ps 28 or ASTM F949. Underdrains shall be perforated with 4 rows of 3/8 inch (9.5 mm) holes with a hole spacing of 3.25 + 0.25 inches (82.5 + 6.4 mm) or a combination of hole size and spacing that provides a minimum inlet area > 1.76 square inches per linear foot (37.2 cm²/m) of pipe or be perforated with slots 0.125 inches (3.2 mm) in width that provides a minimum inlet area > 1.5 square inches per linear foot (31.8 cm²/m) of pipe. Position each underdrain on a 1% or 2% slope located no more than 20 feet from the next pipe. Lay the perforated pipe under the length of the bioretention filter and install non-perforated pipes as needed to connect with the storm drain system or to daylight at ultimate outfall location. Install T's and Y's as needed, depending on the underdrain configuration. Extend cleanout pipes to the surface with vented caps at the T's and Y's.

Aggregate/Gravel – Gravel or aggregate to choker layer and sump stone shall consist of clean, washed stone meeting the appropriate size classification provided.

Sand – Sand layer shall consist of Grade A fine Aggregate.

Pea Gravel – Pea gravel layer shall consist of #8 or #89 stone - washed gravel.

Low Permeability Liner – See special provision for Manufactured Low Permeability Geosynthetic Clay Liners.

Geotextiles –A 3 ft strip of geotextile shall be laid at the top of the aggregate choker layer (directly beneath the pea gravel layer) centered on each perforated segment of underdrain, to encourage a circuitous flow path for flow directed through the filter and reduce potential for soil loss.

IV. MAINTENANCE

During the first year the Contractor shall expect some settlement in the facility. The Contractor shall top up the facility with bioretention soil media to meet the specifications referenced on the plans (final surface elevations of filter at acceptance shall be 0.1 ft. (+/-) within design elevations.

For the first six months following construction, the site shall be inspected at least twice after storm events that exceed 1/2 inch of rainfall.

The Contractor along with the inspectors shall look for bare or eroding areas in the contributing drainage area or around the bioretention area, and assure they are immediately stabilized with

grass cover or other appropriate lining (riprap, blanketing/matting, etc.). Fertilizers may be needed to stabilize for initial planting.

During the first two months following construction, the Contractor will be responsible for watering at least once a week and then as needed during first growing season (April-October).

The typical thresholds below which replacement is required are 85% survival of plant material and 100% survival of trees. Contractor shall provide to the VDOT the pre-warranty plant survey (completed after a full growing season) and evidence of the warranted plant replacement, prior to acceptance by the VDOT.

Conduct spring maintenance inspection at each bioretention area. Check to see if 75% to 90% cover (mulch plus vegetative cover) has been achieved in the bed.

Check for sediment buildup at curb cuts, gravel diaphragms or pavement edges that prevents flow from getting into the bed, and check for other signs of bypassing.

Check for any winter or salt-killed vegetation, and replace it with hardier species.

Inspect bioretention side slopes and grass filter strips for evidence of any rill or gully erosion, and repair it.

Check the bioretention bed for evidence of mulch flotation, excessive ponding, dead plants or concentrated flows, and take appropriate remedial action. Check inflow points for clogging, and remove any sediment.

Look for any bare soil or sediment sources in the contributing drainage area, and stabilize them immediately.

Check for clogged or slow-draining soil media, a crust formed on the top layer, inappropriate soil media, or other causes of insufficient filtering time, and restore proper filtration characteristics.

If water remains on the surface for more than 24 hours after a storm, adjustments to the grading may be needed or underdrain repairs may be needed. The surface of the filter bed shall also be checked for accumulated sediment or a fine crust that builds up after the first several storm events. Tested infiltration rate of filter beds shall be verified to VDOT to be a minimum of 2 inches per hour after the 1-yr care and maintenance period, and prior to acceptance.

If there is standing water, open the underdrain observation well or cleanout and pour in water to verify that the underdrains are functioning and not clogged or otherwise in need of repair. If there is standing water on top, but not in the underdrain, then there is a clogged soil layer. If the underdrain and stand pipe indicates standing water, then the underdrain must be clogged and will need to be snaked.

Remove accumulated sediment and till 2 to 3 inches of sand into the upper 8 to 12 inches of soil. Remove and replace some or all of the soil media as required.

At the end of the year after construction, conduct a joint inspection with VDOT Inspectors and on proper function hand over the facility to the appropriate authorities. Provide an itemized list of maintenance activities conducted, referenced warranty survey and planting information, and documentation of infiltration rates.

V. MEASUREMENT AND PAYMENT

Bedding material aggregate No. 57 will be measured in units of tons and will be paid for at the contract unit price per ton. This price shall include furnishing, installing and all materials, labor tools and equipment necessary to complete the work.

6" Pipe (perforated and non-perforated) will be measured in units of linear feet and will be paid for at the contract unit price per linear foot. This price shall include furnishing, installing and all materials, labor tools and equipment necessary to complete the work.

Pea Gravel - # 8 Stone will be measured in units of tons and will be paid for at the contract unit price per ton. This price shall include furnishing, installing and all materials, labor tools and equipment necessary to complete the work.

Sand – Grade A Fine Aggregate will be measured in units of tons and will be paid for at the contract unit price per ton. This price shall include furnishing, installing and all materials, labor tools and equipment necessary to complete the work.

Geotextile drainage fabric, PE type III will be measured in units of square yards and will be paid for at the contract unit price per square yard. This price shall include furnishing, installing and all materials, labor tools and equipment necessary to complete the work.

Low permeability liner will be measured and paid for in accordance with the special provision for Manufactured Low Permeability Geosynthetic Clay Liners.

Payment will be made under:

Pay Item	Pay Unit
Bedding material aggregate No. 57	Ton
6" Pipe (perforated and non-perforated)	Linear foot
Pea Gravel - # 8 Stone	Ton
Sand – Grade A Fine Aggregate	Ton
Geotextile drainage fabric, PE type III	Square yard

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
LOW PERMEABILITY LINERS FOR STORM WATER MANAGEMENT FACILITIES

August 22, 2013

DESCRIPTION

This work shall consist of placing a low permeability liner for Stormwater Management (SWM) Facilities at the locations designated on the plans and details. This Special Provision does not address placement of dam embankment material or clay core cut-off trenches.

MATERIAL

SWM liner soil shall be classified as CL, CH or MH in accordance with ASTM D 2487 and shall have a maximum coefficient of permeability of 1×10^{-5} cm/sec in accordance with ASTM D 5084, after compaction. The maximum particle size shall be three inches in its largest dimension. Natural soils, which do not meet these specifications, may be blended with bentonite to provide the specified permeability characteristics.

Geosynthetic Clay Liner shall have a maximum coefficient of permeability of 1×10^{-8} cm/sec in accordance with ASTM D 5887.

SUBMITTALS

The contractor shall submit the following for each type of liner material for review and approval prior to use:

- a) Soil classification tests and permeability test (ASTM D 5084) results of unmodified soils proposed for use as SWM liners
- b) A mix design supported by laboratory testing for soils modified with bentonite.
- c) A Source of Material and Manufacturer's Certification for geosynthetic liners.

PROCEDURES

It shall be the Contractor's option as to the type of impervious liner to be used, i.e. natural clay, blended soil or geosynthetic material, unless otherwise noted on the plans. All areas to receive the impervious liner shall be free of organic, frozen, wet, soft or loose soils, fractured rock, or other deleterious materials. These areas shall be evaluated by the Engineer prior to placement of the lining material.

Natural clay liners shall have a final compacted thickness of no less than 12 inches. All lining material shall be placed in loose lifts with a maximum depth of 8 inches prior to compaction and shall be compacted to a minimum 90% of the maximum dry density (VTM-1) at, or up to 30% above, the optimum moisture content. Remove all stones larger than 3 inches in its maximum dimension from the liner subgrade or low permeability soil liner material.

Ensure adequate moisture is present when using blended materials for a liner. Any material that does not meet the above moisture or compaction requirements shall be reworked, recompacted and retested until the required moisture content and density are achieved. The Contractor, at no additional cost to the Department, shall complete Construction Quality Control field density and moisture tests at the rate of one test for every 500 square yards of material placed for low permeability liner construction. Complete a minimum of one compaction test for every lift of fill placed per day.

During construction, the Contractor shall protect the liner material from excessive drying. Place a minimum 12-inch layer of topsoil or other approved material over the liner.

MEASUREMENT AND PAYMENT

Measurement and payment for low permeability liner will be square yards, complete-in-place. Payment shall include the cost of excavation, subgrade preparation, soil conditioning, blending, compaction, grading and moisture conditioning and all other items incidental to the work. Liner cover material shall be Class A Topsoil to the depth specified and will be measured and paid for in cubic yards. Such price shall include furnishing, loading, transporting and applying topsoil to the depth specified, finishing areas and restoring damaged areas prior to final acceptance.

No payment will be made for geosynthetic clay liners that become ineffective, or are damaged due to improper storage, or for bentonite used in blended soils.

Pay Item

Pay Unit

Low Permeability Liner (NS Geotextile)

Square Yards

Topsoil, Liner Cover Material (Class A, 12 inch Depth)

Cubic Yards

ATTACHMENT - 7

VDOT ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SECTION 102.05—PREPARATION OF BID of the Specifications is amended to include the following:

(g) Compliance with the Cargo Preference Act

As required by [46 CFR 381.7 \(a\)-\(b\)](#) "Use of United States-flag vessels, when materials or equipment are acquired for a specific highway project, the Contractor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
3. To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

This requirement will not be applicable when materials or equipment used on the Project are obtained from the existing inventories of suppliers and contractors; they are only applicable when the materials or equipment are acquired for the specific project, and have been transported by ocean vessel.

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 109—MEASUREMENT AND PAYMENT

SECTION 109—MEASUREMENT AND PAYMENT of the Specifications is amended as follows:

SECTION 109.08—Partial Payments is replaced in its entirety with the following:

(a) **General**

Partial payments will be based on a monthly progress estimate consisting of approximate quantities and value of work performed as determined by the Engineer. When the method of measurement for a Contract item is in units of each or lump sum, the value of work accomplished for partial payment will be determined on a pro rata basis. Partial payments will be made once each month for the work performed in accordance with the Contract requirements. The Contractor will be given the opportunity to review the monthly progress estimate prior to each partial payment. Upon final acceptance, one last monthly estimate will be prepared and any additional payment due will be vouchered for payment.

The monthly progress estimates will be prepared in accordance with the following schedule:

1. **Contractor companies whose name begins with the letter A through F:** The monthly progress estimate will be prepared on the 4th day of each month, beginning on the first 4th day following the date of the Contract execution, and on the same day of the succeeding months as the work progresses.
2. **Contractor companies whose name begins with the letter G through P:** The monthly progress estimate will be prepared on the 11th day of each month, beginning on the first 11th day following the date of the Contract execution, and on the same day of the succeeding months as the work progresses.
3. **Contractor companies whose name begins with the letter Q through Z:** The monthly progress estimate will be prepared on the 20th day of each month, beginning on the first 20th day following the date of the Contract execution, and on the same day of the succeeding months as the work progresses.

For contracts without a payment bond, the Contractor shall submit to the Engineer a letter from each materials supplier and subcontractor involved stating that the Contractor has paid or made satisfactory arrangements for settling all bills for materials and subcontracted work that was paid on the previous month's progress estimate. The Department will use the source of supply letter and approved subletting request to verify that certifications have been received for work that was paid on the previous monthly estimate. The Contractor shall furnish these and other certificates as are required as a prerequisite to the issuance of payment for the current monthly estimate.

The Department may withhold the payment of any partial or final estimate voucher or any sum(s) thereof from such vouchers if the Contractor fails to make payment promptly to all persons supplying equipment, tools, or materials; or for any labor he uses in the prosecution of the Contract work.

Unless otherwise provided under the terms of the Contract, interest shall accrue at the rate of one percent per month.

Contractors doing business as an individual must provide their social security numbers; proprietorships, partnerships, and corporations must provide their federal employer identification numbers.

(b) Payment to Subcontractors

Payment to subcontractors shall be in accordance with the provisions of Code of Virginia § 2.2-4354 and § 2.2-4355 as follows.

1. Department has paid Contractor for Subcontractor's Work.

Upon the Department's payment to the Contractor for the subcontractor's portion of the work as shown on the monthly progress estimate and the receipt of payment by the Contractor for such work, the Contractor shall make compensation in full to the subcontractor. For the purposes of this Section, payment of the subcontractor's portion of the Work shall mean that payment has been issued for that portion of the Work that was identified on the monthly progress estimate for which the subcontractor has performed service.

The Contractor shall take one of the following two actions within 7 days after receipt of payment from the Department for the subcontractor's portion of the Work as shown on the monthly progress estimate:

- a. Pay the subcontractor for the proportionate share of the total payment received from the agency attributable to the Work performed by the subcontractor; or
- b. Notify the Department and subcontractor, in writing, of his intention to withhold all or a part of the subcontractor's payment along with the reason for nonpayment.

In the event payment is not made as required, the Contractor shall pay interest at the rate of one percent per month, unless otherwise provided in the Contract, to the subcontractor on all amounts that remain unpaid after 7 days, except for the amounts withheld as provided in this Section.

2. Department has not paid Contractor for Subcontractor's Work.

In the event that the Contractor has not received payment from the Department for work performed by a subcontractor under the Contract, the Contractor is liable for the entire amount owed to such subcontractor and shall pay such subcontractor within 60 days of the receipt of an invoice following satisfactory completion of the work for which the subcontractor has invoiced. The Contractor shall not be liable for amounts otherwise reducible due to the subcontractor's noncompliance with the terms of the Contract. However, in the event that the Contractor withholds all or part of the amount invoiced by the subcontractor under the terms of the Contract, the Contractor shall notify the subcontractor within 50 days of the receipt of such invoice, in writing, of his intention to withhold all or part of subcontractor's payment with the reason for nonpayment, specifically identifying the contractual noncompliance, the dollar amount being withheld, and the lower-tier subcontractor responsible for the contractual noncompliance. Payment by the party contracting with the Contractor shall not be a condition precedent to payment to any lower-tier subcontractor, regardless of the Contractor receiving payment for amounts owed to them. Any contrary provisions shall be unenforceable.

3. Nothing in this Section shall be construed to (i) apply to or prohibit the inclusion of any retainage provisions in a construction contract or (ii) apply to contracts awarded solely for professional services as that term is defined in Code of Virginia § 2.2-4301 where the Department is contracting directly with an architectural and engineering firm.

4. The Contractor shall include in each of its subcontracts provisions requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower tier subcontractor.
5. If the Contractor fails to make payment to the subcontractor within the time frames specified herein, the subcontractor shall notify the Engineer and the Contractor's bonding company in writing. The Contractor's bonding company shall be responsible for insuring payment in accordance with this Section and Section 107.01.

(c) Retainage

If the Engineer determines the Contractor's progress is unsatisfactory according to Section 108.03 or other applicable Contract documents, the Engineer will send a notice of unsatisfactory progress to the Contractor advising him of such determination. This notification will also advise the Contractor that five percent retainage of the monthly progress estimate is being withheld and will continue to be withheld for each month the Contractor's actual progress is determined to be unsatisfactory.

When the Engineer determines that the Contractor's progress is satisfactory in accordance with these requirements, the 5 percent retainage previously withheld because of unsatisfactory progress will be released in the next monthly progress estimate, and the remaining monthly progress estimates will be paid in full provided the Contractor's progress continues to be satisfactory.

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 512 – MAINTAINING TRAFFIC

SECTION 512 – MAINTAINING TRAFFIC of the Specifications is amended as follows:

Section 512.02(f) – Temporary (Construction) signs is replaced with the following:

Temporary (Construction) signs shall have retroreflective sign sheeting in accordance with Sections 247 and 701.

Sign substrates for rigid temporary signs and temporary overlay panels shall be fabricated of either aluminum at least 0.080-inches thick, conforming to Section 229.02(a); 0.4-inch-thick corrugated polypropylene; 0.4-inch-thick corrugated polyethylene plastic; or 0.079-inch-thick aluminum/plastic laminate as approved by the Engineer. Sign substrates shall be smooth, flat, and free of metal burrs or splinters.

Sign substrate materials for signs mounted on drums, Type 3 barricades, and portable sign stands shall be as specified below and shall be the same material that was used when the device was approved in accordance with National Cooperative Highway Research Program (NCHRP) Report 350 or MASH.

Sign Substrates for Type 3 Barricades and Portable Sign Stands

Rollup sign

0.4 inch thick corrugated polypropylene or polyethylene plastic

0.079 inch thick aluminum/plastic laminate

Sign Substrates for Drums

0.4 inch thick corrugated polypropylene or polyethylene plastic

Section 512.03 – Procedures is amended by replacing the sixth and seventh paragraphs with the following:

The Contractor shall correct ineffective or unacceptable work zone traffic control devices immediately unless allowed otherwise by the Contract.

The color of Automated Flagger Assistance Device trailers, arrow board trailers, portable traffic control signal trailers, ITS trailer equipment, and portable changeable message sign trailers and sign frames shall be either Virginia highway orange (DuPont Color No. LF74279 AT or color equivalent) or federal yellow. The back traffic facing trailer frame, where the signal and brake lights are located, shall be fully covered with 2 inch high retroreflective sheeting conforming to Section 247.02(c). The sheeting shall have alternating 11 inch wide vertical red stripes and 7 inch wide vertical white stripes.

The Contractor shall locate, remove, and dispose of all existing asphalt-embedded Snowplowable Raised Pavement Marker (SRPM) castings which lie within a travel lane that has been shifted during construction for three months or longer. The cavity left by the removal of the existing marker shall be cleaned of debris, filled with an approved mix design for resurfacing or material found on the Department's Approved List 78, and compacted before shifting traffic.

Section 512.03(a) – Temporary Signs is replaced with the following:

Temporary Signs: The Contractor shall furnish, install, remove, relocate, and maintain temporary signs and sign panels necessary for prosecution of the work which shall include but not be limited

to, maintenance of traffic, off project detour signs, and begin and end of road work signs for construction, maintenance, permit, utility, and incident management activities. Installation shall be in accordance with Section 701. The Contractor shall also furnish and install those signs not listed in the *VWAPM*, the *MUTCD*, or the Contract (such as “Turn Lane Open with arrow” and “Grooved Pavement Ahead”) that may be required by the Engineer.

Signs shall be fabricated in accordance with the *MUTCD*, *VWAPM*, the FHWA Standard Highway Signs and Markings book (including its Supplement), and the Virginia Standard Highway Signs book. If the Contractor proposes a sign message not included in the Plans, *VWAPM*, or *MUTCD*, then the Contractor shall submit a sign fabrication detail to the Engineer for approval before fabrication. The sign fabrication detail shall include sign size, legend, font, legend dimensions, radius, border, margins, sheeting type, and colors.

The Contractor shall relocate, cover, uncover, remove, and reinstall existing signs that conflict with the signs needed for maintenance of traffic. Covering of existing signs shall be accomplished in accordance with Section 701.03(d).

The Contractor shall ensure an unrestricted view of sign messages. The Contractor shall furnish and install flags for temporary signs, as directed by the Engineer; however flags will not be required for use on portable sign supports.

Sign location, lateral placement, and mounting height shall conform to the *VWAPM*, the *MUTCD*, the Contract, and as directed by the Engineer. The Contractor shall furnish all sign supports and hardware for use with temporary signs.

When the sign sequence is not provided in the plans, either by illustration or reference to a typical traffic control figure in the *VWAPM*, the Contractor shall submit a sketch of his proposed sign sequencing and positioning to the Engineer for approval before installation.

Temporary signs shall be mounted using wooden post supports, square tube sign post supports, or portable sign stands, except where noted otherwise on the Plans. Portable sign stands shall not be used longer than three consecutive days (72 continuous hours). Wooden and square tube post installations shall be in accordance with Standard Drawing WSP-1.

Portable sign stands manufactured on or before December 31, 2019 may be used if they are in good working condition, conform to NCHRP Report 350 Test Level 3 or MASH, and are a product shown on the Traffic Control Device Pre-Approval list. Portable sign stands manufactured after December 31, 2019 shall conform to MASH and shall be a product shown on the Department's Approved List for MASH Approved Products. The Contractor shall submit a certification letter stating the brands and models of portable sign stands to be used along with a copy of the certification letters indicating compliance with NCHRP Report 350 Test Level 3 or MASH. Portable sign stands shall support a 20 square foot sign in sustained winds of 50 mph or wind gusts of passing vehicles without tipping over, walking, or rotating more than ± 5 degrees about its vertical axis.

Portable sign stands shall include decals, stenciling, or some other durable marking system that indicates the manufacturer and model number of the stands. Such marking shall be of sufficient size so it is clearly legible to a person in a standing position.

The Contractor shall erect, maintain, move, and be responsible for the security of sign panels and shall ensure an unrestricted view of sign messages for the safety of traffic.

Section 512.03(g)2b(1) – Drums is replaced with the following:

Drums shall be round or partially round; made from plastic; have a minimum height of 36 inches; have a cross-sectional width no less than 18 inches in any direction; have a closed top; and shall conform to the VWAPM. Drums shall be designed to allow for separation of ballast and drum upon vehicular impact but not from wind and vacuum created by passing vehicles. The base of the unit height shall not exceed 5 inches. Two-piece drums may have a flared drum foundation, a collar not exceeding 5 inches in height and be of suitable shape and weight to provide stable support. One-piece drums that comply with these requirements may be used.

The Contractor shall furnish and install signs (Stop, Chevron, keep Right, etc.) for drums when directed by Engineer. Signs used on drums shall be tested for conformance with NCHRP 350, Test Level 3, and/or MASH requirements and shall be made of the same material used in the test. The Contractor may use other materials allowed by the FHWA acceptance letter when approved by the Engineer.

Section 512.03(g)2b(3) – Direction indicator barricades is deleted.

Section 512.03(h) –Traffic Barrier Service is replaced with the following:

Traffic Barrier Service shall be of sufficient length to provide anchorage and protection of traffic and personnel in work areas.

The Contractor shall begin continuous progressive prosecution of the work protected by the barrier once the barrier is in place until its completion. If the Contractor ceases to continuously prosecute such work, the Engineer may cause the Contractor to discontinue operations in other areas on the project and concentrate work efforts behind the traffic barrier service until that work is completed. The Contractor shall remove the traffic barrier service when the Engineer determines work is completed to the extent that traffic barrier service is no longer required.

While performing work activities, workers and equipment shall remain behind the protection of the traffic barrier service except as approved by the Engineer. Work outside traffic barrier service protection shall only proceed under the protection and direction of approved traffic control devices or flagger service to safeguard workers and traffic in advance of and at the point the traffic barrier service is opened for ingress or egress adjacent to the travel lane. The Engineer will not permit any equipment extending into an open travel lane.

Barrier openings for access to the work area may be provided only along tangent sections or along curved sections on the inside of traffic and shall be limited to the minimum length required for equipment access. The Contractor shall delineate and maintain normal pavement alignment at the barrier opening with Type D pavement marking.

At ingress openings, the exposed end of the barrier service shall be provided with a temporary impact attenuator approved by the Engineer. At egress openings, the exposed end shall be transitioned at a rate that complies with the VWAPM. For speeds below 30 mph, the transition flare rate shall be the same as that indicated for 30 mph. An impact attenuator will not be required at the exposed end of egress openings in barrier service provided the deflection angle between the pavement edge and the ends of the barrier service openings is 20 degrees or more.

Repairs to traffic barrier service shall match existing barrier so that positive connections can be maintained.

Delineators and barrier panels shall have reflectorized sheeting conforming to Section 247, shall be from the Department's Approved List 23, and shall be installed on traffic barrier service in accordance with the VWAPM.

The Contractor shall maintain the structural integrity of the barrier and its alignment while it is in use and shall maintain any associated warning lights, barrier delineators, barrier panels, and other devices in functional, clean and visible conditions at all times.

1. **Guardrail barrier service and terminal treatments** shall be installed in accordance with Section 505 except that the offset distance shall be as specified by the Engineer. The Contractor may be permitted to reuse guardrail or its hardware used for traffic barrier service guardrail for permanent installation provided the guardrail material is acceptable to the Engineer and conforms to Section 505 and the Standard Drawings for such guardrail. Marred galvanized surfaces shall be repaired in accordance with Section 233. Terminal treatments shall be permanently identified with a device specific Manufacturers' identification number by stamping or marking with a durable weather resistant material in accordance with § 33.2-274.1 of the Code of Virginia.
2. **Traffic barrier service** (concrete or longitudinal steel) shall be installed in accordance with the Plans and Standard Drawings or as directed by the Engineer, who will design according to Appendix A of the VWAPM. When traffic barrier ends at guardrail, fixed object attachment methods for construction zone shall be used to connect the barrier to the guardrail. Installation shall include additional guardrail posts and attachments as required. The traffic barrier, at a minimum, shall be tapered with the end of the barrier located behind the adjacent guardrail post in accordance with the VWAPM. Barrier connections shall be snug to prevent motion between sections.

Traffic barrier service used as a parapet shall be anchored as shown on the Plans or Section 500 of the Standard Drawings. Anchor holes in bridge decks shall be drilled with a rotary impact drill or other approved equipment that will limit damage to the deck. Anchor holes shall be located to avoid cutting reinforcing steel. Upon removal of the parapet, anchor holes shall be cleaned and filled with Type EP-4 or EP-5 epoxy mortar conforming to Section 243.

The Department will not permit the use of concrete traffic barrier service for permanent installations on bridge structures.

Traffic barrier service sections manufactured on or before December 31, 2019 and successfully tested to NCHRP 350 or MASH 2009 may be used until December 31, 2029, if they are in good working condition, and are a product shown on the Department's Approved Lists for NCHRP-350 or MASH Approved Products. Traffic barrier service sections manufactured after December 31, 2019, and all products in use after December 31, 2029, shall conform to MASH 2016 or its successor, and shall be from the Department's Approved List for Provisionally Approved MASH Products. All traffic barrier service runs shall be interlocking barrier of the same design or type.

The Contractor shall visually inspect all traffic barrier service shipped to a project before placing it in use. Concrete barrier sections shall be structurally sound with no concrete missing along the top, bottom, sides, or end sections of the barrier; no through cracks; and no exposed rebar. The Contractor shall promptly remove any traffic barrier service found by the Contractor or Engineer to be unacceptable due to inadequate structural integrity or functionality and replace the concrete barrier service at no cost to the Department.

Concrete barrier service shall be cleaned or coated sufficiently to afford good visibility and uniformity of appearance.

The Engineer will review and must approve the layout and anchorage method for job specific applications before the barrier is authorized for installation.

With the approval of the Engineer, the Contractor may use additional traffic barriers for his convenience but at his own expense.

Section 512.03(i) – Impact Attenuator Service is replaced with the following:

Impact Attenuator Service: The Contractor shall install impact attenuator service at locations shown on the Plans or designated by the Engineer. An object marker for temporary impact attenuator shall be installed on the attenuator according to the details shown in the Standard Drawings. The object marker for impact attenuator service shall have reflective sheeting conforming to Section 247 featuring alternating diagonal black and orange 3 inch stripes sloping downward at an angle of 45 degrees in the direction vehicular traffic is to pass. Impact attenuators shall be permanently identified with a device specific Manufacturers' identification number by stamping or marking with a durable weather resistant material in accordance with § 33.2-274.1 of the Code of Virginia.

Impact Attenuator Service not shown on the Plans may be used at the request of the Contractor for the Contractor's convenience at the Contractor's expense.

All impact attenuator service shall be reviewed and approved by the State Location and Design Engineer before installation.

Impact Attenuators manufactured on or before December 31, 2019 and successfully tested to NCHRP 350 or the MASH 2009 may continue to be used until December 31, 2029. Impact Attenuators manufactured after December 31, 2019 shall meet MASH 2016 and shall be from the Department's Approved List for Provisionally Approved MASH Products.

Section 512.03(j)2c – Equipment is replaced with the following:

12 inch aluminum or polycarbonate traffic signal head sections with backplates mounted in the vertical display arrangement. Signal head sections may be mounted in the horizontal display arrangement when approved by the Engineer. Signal head sections and backplates shall conform to Section 238.

Section 512.03(k) – Temporary (Construction) Pavement Markings is replaced with the following:

Temporary (Construction) Pavement Markings shall be installed at locations shown on the Plans, the *VWAPM*, and as directed by the Engineer. Temporary pavement markings shall conform to Section 704 and be selected from the Department's Approved List 17. Temporary pavement markings are classified as Type A or B (temporary markings), Type D, Class III (removable tape), Type E (non-reflective black removable tape), and Flexible Temporary Pavement Markers (FTPMS).

The Contractor shall install temporary pavement markings in accordance with the manufacturer's recommendations, except that if the manufacturer's recommendation for material thickness and quantity of beads is less than that used when the material was tested by the NTPEP, the minimum product application rates shall conform to the NTPEP approved test rates for the specific marking. The Contractor shall furnish a copy of the manufacturer's installation recommendations, including the NTPEP data for product thickness and glass bead quantities to the Engineer.

The Contractor shall maintain the temporary pavement markings and shall correct any deficient markings by reapplying markings as directed or needed. The Department considers deficient any temporary pavement markings that provide inadequate guidance to motorists due to inadequate retroreflectivity, color qualities, or adherence to the pavement. The Engineer will make a visual nighttime inspection of all temporary pavement markings to identify areas where markings have

inadequate retroreflectivity. Other deficient qualities may be identified by visual inspection at any time.

Markings that no longer adhere to the pavement, and may cause guidance problems for motorists, or are inadequately retroreflective as determined by the Engineer shall be replaced by the Contractor, with the following exceptions:

- Reapplication of skip line temporary pavement markings is not required unless the pavement marking does not adhere or inadequate retroreflectivity qualities are present for at least two consecutive skip lines.
- Reapplication of centerline (except skip lines) or edge line temporary pavement markings is not required unless the pavement marking does not adhere or inadequate retroreflectivity qualities are present for a continuous section of at least 70 feet.
- Reapplication of transverse markings is not required unless the pavement marking does not adhere or inadequate retroreflectivity qualities are present for a continuous section of at least 3 feet.

The Contractor may take retroreflectivity readings to counter visual observations by the Engineer as the basis for replacement of temporary pavement markings. These measurements shall be taken within 48 hours after the Contractor has been notified of the visual determination by the Engineer of deficient markings. The Engineer will grant additional time to the Contractor when inclement weather prevents accurate measurement of the temporary pavement markings.

The Contractor shall brush any form of debris from the marking before taking the retroreflectivity readings. Retroreflectivity measurements shall be taken in the presence of the Engineer using Contractor furnished equipment conforming to ASTM E1710. A copy of the operating instructions for the reflectometer shall be furnished to the Engineer before taking the measurements. The Contractor shall calibrate and operate the equipment in accordance with the manufacturer's instructions. The photometric quantity to be measured is the coefficient of retroreflected luminance (RL), which shall be expressed as millicandelas per square foot per footcandle (mcd/sf/ftc). Measurements shall be taken at three random locations within each area of markings that are suspected of being inadequately retroreflective. When the length of the questionable visually inspected area is greater than 1 mile, the Contractor shall take measurements at three locations per mile segment or portion thereof. Measurements for all lines shall be taken in the middle of the line horizontally. Measurements for skip lines shall be taken in the middle of their length. Measurements for transverse lines shall be taken outside of the wheel path locations. The Engineer will designate the locations along the line segments where the measurements shall be taken. The Contractor shall make a log of the measurements and their locations and provide a copy to the Engineer. When the average of the three readings for an area is below 100 mcd/sf/ftc, the Contractor shall reapply the markings as indicated.

Temporary (construction) pavement markings found in need of reapplication in accordance with these requirements shall be reapplied by the Contractor at no additional cost to the Department, with the following exceptions:

- Type D markings that have been under traffic for more than 180 days and requires reapplication will be paid for at the contract unit price when reapplied, unless the manufacturer's warranty coverage is still applicable.
- Markings damaged by the Department's snow removal or other maintenance and construction operations will be paid for at the contract unit price.

Deficient temporary pavement markings shall be replaced in the time specified in Section 704 for the maximum duration of unmarked roads.

Eradication for reapplication of Type A or B pavement markings is not required if allowed by the marking manufacturer, if the existing marking is well adhered and the total thickness of the existing and reapplied marking combined will not exceed 40 mils. If not well adhered, 90 percent of the existing markings shall be eradicated before reinstallation of the markings.

Existing Type D markings that are deficient (no longer retaining sufficient retroreflectivity) shall be removed before reapplication of new Type D, Class III markings.

1. **Temporary Type A or B pavement markings** shall be used where the roadway is to be resurfaced before changes in the traffic pattern or where pavement is to be demolished and traffic patterns will not change before demolition.
2. **Type D, Class III pavement markings** shall be used on final roadway surfaces or in areas where traffic patterns are subject to change before pavement is resurfaced, unless otherwise specified in the Contract.

On non-final pavement surfaces, the Contractor may install Type A or B pavement markings when the surface temperature of the pavement is below the manufacturer's minimum application temperature for a Type D pavement marking. In such cases, the Contractor shall select a Type A or B product known to perform the best under those temperature conditions. When a Type A or B pavement marking is used instead of a Type D pavement marking due to the surface temperature being below the manufacturer's minimum application temperature, the Contractor will be paid at the contract unit price for Type D pavement marking. This shall include the Type A or B marking and any necessary eradication of the Type A or B pavement marking.

3. **Type D, Class III contrast pavement markings** shall be used for all longitudinal temporary pavement markings on bridge decks and hydraulic cement concrete riding surfaces if all of the following are met:
 - The road has a speed limit of 45 MPH or greater.
 - The hydraulic cement concrete riding surface in question is at least 200 feet in length.
 - The temporary markings are planned for at least 30 days of use.

Type D, Class III contrast markings are not required for any markings that are parallel to and within one foot of existing guardrail or other longitudinal barrier.

4. **Type E pavement markings** shall be used to cover existing markings in accordance with paragraph (I) herein.
5. **Flexible Temporary Pavement Markers (FTPMS)** may be used to simulate a temporary pavement marking line on the final surface, as an interim measure until the permanent pavement marking can be installed. FTPMs shall not be used in substitution for lines slated to be in place for more than 30 days.

FTPMS shall conform to Section 235 and shall consist of products from the Department's Approved List 22. All FTPM's shall be new product. FTPMs are suitable for use up to one year after the date of manufacture when stored in accordance with the manufacturer's recommendations.

FTPMS shall include a removable material covering the reflective lens to protect the lens from being obscured or damaged during the paving operation.

FTPMS spacing shall be as follows:

- When simulating solid lines, the FTPMS shall be placed every 20 feet.
- When simulating double lines, pairs of side-by-side FTPMS shall be placed every 20 feet.
- When simulating broken lines with a 10-foot-skip/30-foot-gap pattern, 3 FTPMS shall be used per skip (5 feet between each FTPMS), with a 30-foot gap between simulated skips.
- When simulating dotted lines with a 3-foot skip/9-foot-gap pattern, 2 FTPMS shall be used per skip (3 feet between the two FTPMS), with a 9-foot gap between simulated skips.

FTPMS shall not be used to simulate transverse lines, symbol/message markings, or dotted lines with 2-foot dot/6-foot-gap pattern.

The color of FTPMS units and their reflective surfaces shall be the same color (white or yellow) as the temporary pavement markings they are being used in substitution for.

FTPMS shall be installed at the same locations that permanent pavement markings will be installed.

For surface treatment, slurry seal or latex emulsion treatment operations, the appropriate FTPMS with protective covering shall be installed before placing the new treatment. The lens protective covering shall be kept in place during the final surface placement to protect the lens from being obscured or damaged by the paving operation. Upon completion of surface treatment, slurry seal or latex emulsion treatment placement, the Contractor shall remove the protective covering from the reflective lens of the FTPMS before leaving the work site. Failure to remove such covering shall result in the non-payment for that portion type (skip or solid) of temporary pavement marking.

For plant mix operations, the appropriate FTPMS shall be installed on the newly-placed pavement after the pavement is thoroughly compacted and has cooled to the FTPMS manufacturer's recommended temperature for installation.

The Contractor shall maintain the FTPMS until the permanent pavement markings are installed. Damaged or missing FTPMS shall be replaced within 24 hours of discovery at the Contractor's expense with new FTPMS of the same manufacturing type, color and model. No more than one FTPMS may be damaged or missing out of every skip line or dotted line simulated segment. No two consecutive FTPMS may be damaged or missing on a simulated solid line or double line application, and no more than 30% of the FTPMS may be damaged or missing on any measured 100-foot segment of simulated solid line.

Once applied, FTPMS will be considered for a single use. If a FTPMS requires replacement before installation of permanent pavement markings, it shall be properly disposed of and replaced with a new FTPMS at no additional cost to the Department.

FTPMS shall be removed and properly disposed of when permanent pavement markings are installed. Used FTPMS removed from the pavement, including all containers, packaging, damaged FTPMS's and all other miscellaneous items of waste, shall be appropriately disposed of in accordance with Section 106.04.

Section 512.03(I) – Eradicating Pavement Markings is replaced with the following:

Eradicating Pavement Markings: Markings that may conflict with desired traffic movement, as determined by the Engineer, shall be eradicated as soon as practicable: either immediately before the shifting of traffic or immediately thereafter and before the conclusion of the workday during

which the traffic shift is made. Work shall be done in accordance with Section 704 except as noted herein.

The Contractor shall perform eradication by grinding, blasting, or a combination thereof. Blasting may be performed using water blasting, sand blasting, hydroblasting (combination of sand and water), or shot blasting. Water blasting and hydroblasting shall be done with equipment that includes a vacuum recovery system and capability to adjust the water pressure.

The Contractor may submit other methods for eradication for the Engineer's approval; however, the Department will not permit obscuring existing pavement markings with black paint or asphalt as a substitute for removal or obliteration. The Contractor shall minimize roadway surface damage when performing the eradication. The Contractor shall repair the pavement if eradication of pavement markings results in damage to or deterioration of the roadway presenting unsafe conditions for motorcyclists, bicyclists, or other road users. Pavement repair, when required, shall be performed using a method approved by the Engineer.

The Contractor shall ensure workers are protected in accordance with Section 107.17 when eradicating pavement markings.

The Contractor shall vacuum or collect the eradication residue (removed markings, debris, and water) during and immediately after the eradication operation. Dust shall be collected during the entire operation. The Contractor shall ensure that no debris enters inlets or waterways.

Eradication residue from the removal of any pavement markings is considered to be a nonhazardous waste material and shall be disposed of in a properly permitted waste disposal facility in accordance with applicable state and federal laws and regulations. The Department does not require Contractor testing of the eradication residue for the eight Resource Conservation Recovery Act metals.

When markings are removed for lane shifts, transitions, or other areas or conditions required in the VWAPM, 100% of the pavement marking shall be removed.

Type E pavement markings may be used to cover existing markings instead of eradication on asphalt concrete surfaces. The Contractor shall use this material to cover markings as indicated in the Plans or as directed by the Engineer. Type E pavement marking shall be applied in accordance with the manufacturer's recommendations. Type E markings shall not be adhered to the pavement for more than 120 days. Type E markings shall not be used on HCC surfaces or bridge decks.

When eradicating symbols and messages, the entire theoretical box bounding the outermost limits of the markings shall be uniformly eradicated.

Eradication of 24" lines shall be considered nonlinear marking eradication.

Section 512.03(m) – Temporary Pavement Markers is renamed **Temporary Raised Pavement Markers** replaced with the following:

Temporary Raised Pavement Markers shall be installed with temporary pavement markings where required by the VWAPM and where directed by the Engineer. Temporary raised pavement markers shall not be used with Type E markings.

Temporary raised pavement markers shall be installed at the spacing required by the VWAPM, and as shown on Standard Drawing PM-8. . The Contractor may install two one-way markers instead of each two-way marker at no additional cost to the Department.

Temporary raised pavement markers shall be installed with a hot applied bitumen adhesive, except epoxy may be used on hydraulic cement concrete roadways and non-final surfaces of asphalt concrete roadways. Pavement damage caused by removing markers shall be repaired in kind by the Contractor at no additional cost to the Department.

The Contractor shall replace damaged, ineffective, or missing temporary raised pavement markers upon notification by the Engineer at no additional cost to the Department. Markers damaged by the Department's snow removal operations or other maintenance and construction operations, however, will be paid for at the contract unit price.

Section 512.03(p) –Temporary Pavement Message and Symbol Markings is replaced with the following:

Temporary Pavement Message and Symbol Markings shall be the color, shape, and size required by the MUTCD, Standard Drawing PM-10, and the Plans. The Contractor shall install message and symbol markings in accordance with MUTCD, Section 704, the VWAPM, and the Standard Drawings.

Temporary pavement message and symbol markings shall be installed and maintained using the material specified on the Plans in accordance with Section 512.03(k).

Pavement message/symbol markings shall be installed at locations shown on the Plans and at locations designated by the Engineer.

Temporary pavement message markings shall be maintained in accordance with Section 512.03(k). Retroreflective measurements conforming to Section 512.03(k) shall be taken out of the wheel path locations. The pavement message/symbol marking shall be replaced when the average of the three readings for the symbol/message is below 100 mcd/sf/ft.

Section 512.03(q) – Type 3 Barricades is replaced as follows:

Type 3 Barricades: Type 3 barricades shall conform to NCHRP Report 350, Test Level 3, or MASH. Type 3 barricades shall be selected from those shown on the Department's Traffic Control Device Pre-Approval List. The Contractor shall provide a certification letter stating the brands and models of Type 3 barricades from the list proposed for the project. Instead of using Type 3 barricades on the listing, the Contractor may use other brands and models, if he submits a copy of the FHWA acceptance letter indicating the proposed substitutes complies with Test Level 3 of NCHRP Report 350 or MASH before use.

Type 3 Barricades shall be installed and ballasted in accordance with the VWAPM.

Section 512.03(r) – Truck-mounted or trailer mounted attenuators is replaced as follows:

Truck-mounted or trailer-mounted attenuators (TMAs): Truck-mounted and trailer-mounted attenuators manufactured on or prior to December 31, 2019 may be used if they are in good working condition, conform to Test Level 3 of NCHRP Report 350 or MASH, and are a product shown on the Department's Approved Lists for NCHRP-350 or MASH Approved Products. TMAs manufactured after December 31, 2019 shall conform to MASH Test Level 3 and shall be a product shown on the Department's Approved List for MASH Approved Products.

The Contractor shall submit catalog cuts/brochures of the TMA and a copy of the certification letter documenting NCHRP 350/MASH compliance of the specific TMA before their use on the project. TMAs shall be permanently identified with a device-specific manufacturers' identification number

by stamping or marking with a durable weather resistant material in accordance with § 33.2-274.1 of the Code of Virginia.

The weight of the support vehicle shall be as recommended by the manufacturer of the Truck/Trailer-mounted attenuator. The Contractor shall provide a copy of the manufacturer's recommendations to the Engineer, a copy of the original weigh ticket for the support vehicle, and a self-certification letter stating the support vehicle has not been altered since the original weight ticket was issued. The weigh ticket shall contain adequate information to identify the ticket with the applicable support vehicle. A copy of the self-certification and weigh ticket shall be available in the support vehicle at all times and upon request.

Additional weight may be added to the support vehicle to achieve the range recommended by the manufacturer of the Truck/Trailer-mounted attenuator provided the total weight is properly balanced without overloading any one axle, and is within the Gross Vehicle Weight Recommendation of the support vehicle. The added weight shall be securely attached to the support vehicle to prevent movement during an impact or movement of the vehicle. The additional weight and attachment method shall be self-certified by the Contractor and a copy of the self-certification letter shall be with the support vehicle at all times or a final stage manufacturer's certification sticker may be placed on the inside door of the altered vehicle.

The Truck/Trailer-mounted attenuator shall be no less than 72 inches wide and no more than 96 inches wide. There shall be no additional devices such as signs, lights, and flag holders attached to the Truck/Trailer-mounted attenuator except those that were tested on the Truck/Trailer-mounted attenuator and provided by the manufacturer of the Truck/Trailer-mounted attenuator.

The support vehicle shall have at least one vehicle warning light functioning while in operation in accordance with the VWAPM. When allowed by the VWAPM, an electronic arrow operated in the caution mode may be used with the vehicle warning light. When installing and removing lane closures on a multilane roadway as well as when performing mobile operations, the support vehicle shall be equipped with both vehicle warning lights and an arrow board.

The support vehicle shall be operated and parked in accordance with the manufacturer's recommendations.

Limitations: Traffic control devices shall not be installed from or removed to the Truck/Trailer-mounted attenuator support vehicle. When the Truck/Trailer-mounted attenuator is deployed there shall be no unsecured material in the bed of the support vehicle except the additional secured weight or truck-mounted devices such as an arrow board, a changeable message sign, or truck mounted signs. There shall also be no additional devices such as signs, lights, and flag holders attached to the Truck/Trailer-mounted attenuator except those that were tested on the Truck/Trailer-mounted attenuator and provided by the manufacturer of the Truck/Trailer-mounted attenuator.

If the Truck/Trailer-mounted attenuator is impacted, resulting in damage that causes the unit to be ineffective, all work requiring the use of the Truck/Trailer-mounted attenuator shall cease until such time that repairs can be made or the Contractor provides another acceptable unit.

Section 512.03(s) – Portable Changeable Message Signs is amended to replace the second and third paragraphs with the following:

The sign shall be capable of sequentially displaying at least 2 phases of 3 lines of text each with appropriate controls for selection of messages and variable off-on times. Trailer-mounted PCMS shall be capable of displaying 3 lines of 8-character 18-inch text in a single phase, and vehicle-mounted PCMS shall be capable of displaying 3 lines of 8-character 10-inch text in a single phase. Each character module shall at a minimum use a five wide by seven high pixel matrix. The message shall be composed from keyboard entries.

Access to PCMS control mechanisms shall be physically locked at all times when deployed to deter message tampering.

The message shall be legible in any lighting condition. Motorists should be able to read the entire PCMS message twice while traveling at the posted speed.

The sign panel support shall provide for an acceptable roadway viewing height that shall be at least 7 feet from bottom of sign to crown of road.

Section 512.03(w) – Portable Temporary Rumble Strips (PTRS) is replaced as follows:

Portable Temporary Rumble Strip (PTRS):

A PTRS may be made of rubber or recycled rubber. It shall have a recessed, raised or grooved design to prevent movement and hydroplaning. PTRS color shall be in accordance with the VWAPM.

A PTRS shall consist of interlocking or hinged segments of equal length that prevent separation when in use. The combined overall usable length of the PTRS shall be between 10 feet 9 inches and 11 feet. The width of the PTRS shall be 12 to 13 inches. PTRS shall be between 5/8 inch and 1.0 inch in height. The weight of each roadway strip shall be between 100 and 120 pounds. The leading and departing edge taper shall be between 12 and 15 degrees.

Each roadway length of the PTRS shall have either a minimum of one cutout handle in the end of the rumble strip, or an interlocking segment which can be used as a handle for easy deployment or removal.

The manufacturer of the PTRS shall provide a signed affidavit that states the PTRS is able to withstand being run over by an 80,000 pound vehicle and retain its original placement with minor incidental movement of 6 inches or less during an 8 hour deployment. Incidental movement of the PTRS shall be parallel with other rumble strips in an array but shall not move so that its placement compromises the performance and safety of the other rumble strips, workers or the traveling public.

The PTRS shall be installed in accordance with manufacturers installation instructions, without the use of adhesives or fasteners.

PTRS Placement shall be in accordance with the VWAPM.

Section 512.04 – Measurement and Payment is amended to replace the 13th paragraph with the following:

Impact attenuator service will be measured in units of each and will be paid for at the Contract each price for the type specified. This price shall include installing, maintaining, and removing impact attenuator and object marker. Impact attenuators used with barrier openings for equipment access will not be measured for separate payment but the cost thereof shall be included with other appropriate items. When impact attenuator service is moved to a new location, as directed or approved by the Engineer, the relocated terminal will be measured for separate payment. Payment

for impact attenuator service will not be made until the work behind the corresponding barrier service is actively pursued.

Section 512.04 – Measurement and Payment is amended to replace the 16th paragraph with the following:

Temporary pavement markings will be measured in linear feet and will be paid for at the contract linear foot price for the type, class and width specified. This price shall include marking materials, glass beads, adhesive, preparing the surface, maintaining, removing removable markings when no longer required, inspections, and testing.

If the Contractor uses FTPMs to simulate the temporary pavement marking, they will be measured in linear feet and paid for at the linear foot price for the temporary marking material being simulated. That measurement shall represent all FTPMs required for that simulated line marking. No additional payment will be made if the Contractor elects to remove FTPMs and install other temporary pavement markings. This cost shall include furnishing, installing and maintaining the FTPMs, removable covers, surface preparation, quality control tests, daily log, guarding devices, removal, and disposal.

Section 512.04 – Measurement and Payment is amended to replace the 21st paragraph with the following:

Eradication of existing nonlinear pavement markings will be measured in square feet based on a theoretical box defined by the outermost limits of the nonlinear pavement markings as defined in Standard Drawing PM-10. Nonlinear pavement markings shall include but not be limited to, arrows, images, symbols, and messages. Eradication of existing nonlinear pavement markings will be paid for at the contract unit price per square foot. This price shall include removing nonlinear pavement markings, cleanup, and disposing of residue.

Section 512.04 – Measurement and Payment is amended to replace the 30th paragraph with the following:

Portable Temporary Rumble Strip (PTRS) Array will be measured in Days per array and will be paid for at the Contract Day price. An Array shall consist of three rumble strips. This price shall include installing, maintaining, removing devices when no longer required, and relocating throughout the day.

Section 512.04 – Measurement and Payment is amended by revising the Pay Item Table as follows:

The following pay items are removed:

Pay Item	Pay Unit
Portable temporary rumble strip	Each

The following pay items are inserted:

Pay Item	Pay Unit
Portable temporary rumble strip array	Day

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 234 – GLASS BEADS AND RETROREFLECTIVE OPTICS

SECTION 234 – GLASS BEADS FOR REFLECTORIZING TRAFFIC MARKINGS of the Specifications is replaced as follows:

SECTION 234 – GLASS BEADS AND RETROREFLECTIVE OPTICS

234.01 – Description

This specification covers glass beads and retroreflective optics applied on the surface or incorporated into traffic-marking materials so as to produce a retroreflective surface.

234.02 – Detail Requirements

Glass beads and retroreflective optics shall be supplied from a supplier listed on Materials Approval List No. 76.

The Contractor shall provide a written certification that each batch of glass beads or retroreflective optics used in or on VDOT pavement markings meets VDOT specifications and does not exceed the AASHTO M 247 maximum concentration limits for Lead and Arsenic.

- (a) **Glass beads** shall have a composition designed to be highly resistant to traffic wear and weather. Materials other than glass will be allowed if the pavement marking product was tested on the NTPEP test deck with the alternative bead material.

Glass beads shall have a Refractive Index of 1.50-1.79 when tested as per AASHTO T 346.

Glass beads shall conform to AASHTO M 247, except that at least 80 percent of the beads shall be round when tested in accordance with ASTM D 1155, Procedure B.

- (b) **Retroreflective Optics** shall have a concentration designed to be highly resistant to traffic wear and weather. Retroreflective Optics shall be composed of glass beads, ceramic materials, or a combination of glass beads or ceramic materials affixed to a glass bead core.

Retroreflective Optics shall have a Refractive Index of 1.8 or higher when tested as per AASHTO T 346.

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 235 – RETROREFLECTORS

SECTION 235 – RETROREFLECTORS of the Specifications is deleted and replaced as follows:

235.01 – Description

Retroreflectors are retroreflective surfaces that redirect the vehicle headlights back to the driver to delineate the road. The retroreflective surface may consist of a plastic prismatic reflector or retroreflective sheeting. Retroreflectors are used with:

- Pavement Markers (Permanent and Temporary)
- Delineators (Guardrail, Barrier, Flexible Post, Road Edge)

Pavement markers and Delineators shall be approved by reviewing performance data from one or both of the following test programs:

- (a) AASHTO's National Transportation Product Evaluation Program (AASHTO/NTPEP). Test data values used for approval may be based upon the data generated per the applicable NTPEP Work Plan.
- (b) VDOT Test Facility – VDOT may elect to evaluate performance from their own test facility.

235.02 – Detail Requirements

- (a) **Inlaid Pavement Markers** – Holders for inlaid pavement markers shall be made of polycarbonate plastic nominally 4.75 inches wide excluding breakaway tabs, and shall be able to hold retroreflectors from the Department's Approved List 22 under Inlaid Pavement Markers. The top of the the retroreflector shall be 1/8 inch below the pavement surface when installed with the breakaway positioning tabs resting on the pavement surface.

Retroreflectors for inlaid pavement markers shall have a nominal width of 4 inches excluding the holders.

- (b) **Pavement Markers (Temporary)** – Refer to VTM-70 for testing and approval
- (c) **Pavement Markers (Permanent)** – Refer to VTM-70 for testing and approval
- (d) **Delineators** – Refer to VTM-70 for testing and approval
- (e) **Aluminum panels for delineators** shall be at least 0.064 inch thick conforming to ASTM B-209, alloy 5052.

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 246 – PAVEMENT MARKING

SECTION 246 – PAVEMENT MARKING of the Specifications is amended as follows:

Section 246.02 – Detail Requirements is amended to replace the fifth through seventh paragraphs with the following:

Pavement marking materials shall produce a retroreflective line, message, legend or symbol of specified thickness, width or design in accordance with the MUTCD and Contract requirements.

Pavement marking material shall have the pigment, glass beads, retroreflective optics, and filler well dispersed in the resin, and shall be free from skins, dirt, and foreign objects.

Glass beads and retroreflective optics shall conform to Section 234.

Section 246.02(a) – Approval of Pavement Markings is amended to replace the second paragraph of the second bullet with the following:

When pavement markings are installed on the NTPEP test deck or the VDOT facility, the material's thickness, beads/retroreflective optics, and formulation shall be documented to ensure the equivalent thickness, beads/retroreflective optics and formulation are installed on VDOT roadways following approval.

Section 246.02(b) – Certifications is replaced with the following:

The pavement marking material manufacturer shall certify each batch or lot of material supplied and installed is the same product (thickness, retroreflective optics package and formulation) that was tested and approved on the AASHTO/NTPEP or VDOT test facility in accordance with the Materials Division, Manual of Instructions for Certification I and II Materials. The certification shall include the NTPEP test number from the Materials Division's Approved Products List. The Contractor shall retain the manufacturer's certifications.

Section 246.02(c) – Warranty Requirements is amended to replace the first paragraph with the following:

Pavement marking products shall carry the warranties as supplied by the manufacturer of the individual marking types (classes) for the specific timeframes per type and class and the material requirements for retroreflectivity, durability, color, luminance (Y%), and adhesion as referenced herein. Warranties shall be those commercially supplied or those unique to the Commonwealth in the case of certain products, such as Type B, Class VI preformed pavement marking tape as detailed herein. Manufacturers' warranties shall be obtained by the Contractor and assigned to the Department in writing prior to final acceptance. Warranty periods shall begin on the date of receipt at the project as verified by delivery tickets signed by the Engineer.

Section 246.03(a) – Paint Pavement Marking Materials (Type A) is renamed **Section 246.03(a) – Conventional or Cold Weather Paint Marking Materials (Type A, Class I)** and amended to replace the first paragraph with the following:

Type A, Class I paint material shall be a fast-drying, waterborne, nonleaded, acrylic or modified acrylic resin paint suitable for use on both asphalt and hydraulic cement concrete pavement surfaces and shall be selected from the Materials Division's Approved Products List No. 20. Type A, Class I material shall

be designed to be applied at approximately 15 mils wet film thickness in conjunction with AASHTO M 247 Type I beads as per Section 234 of the Specifications.

Type A, Class I cold weather paint shall be capable of being both applied and remaining fully adhered to the surface at temperatures below 40 °F.

Section 246.03(a)1e – IR Scan from NTPEP is replaced with the following:

e. **IR Scan from NTPEP.**

Section 246.03(b) – High Build Paint Marking Materials (Type A, Class II) is added as follows:

Type A, Class II Paint material shall be a fast-drying, waterborne, nonleaded, acrylic or modified acrylic resin paint suitable for use on both asphalt and hydraulic cement concrete pavement surfaces and shall be selected from the Materials Division’s Approved Products List No. 20. Type A, Class II material shall be designed to be applied at approximately 27 mils wet film thickness.

1. **Initial Approval** - Maintained retroreflectivity, color (including luminance), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:

a. **Maintained Retroreflectivity:** The photometric quantity to be measured is the coefficient of retroreflected luminance (R_L) in accordance with ASTM E1710 for 30-meter geometry. R_L shall be expressed in millicandelas per square foot per foot-candle when measured in the skipline or centerline areas:

Coefficient of Retroreflected Luminance (R_L) (mcd/ft²/fc) Paint		
Color	Initial	1 Year In-Service
White	300	125
Yellow	225	100

b. **Day and Nighttime Color and Luminance (Y%):** Measured according to ASTM D6628.

c. **Durability:** Paint shall have a durability rating of at least 8 when determined in the wheel path area when tested in accordance with the NTPEP Work Plan.

d. **Skid Resistance:** The initial skid resistance shall be at least 45 BPN when tested according to ASTM E303, if available.

e. **IR Scan from NTPEP.**

2. **Batch Testing**

Paint batch testing shall be performed by the Department on samples obtained from the point of manufacture or from the field in accordance with the Materials Division’s Manual of Instructions. The test results shall be compared against NTPEP lab test results and the Specifications. Testing shall be performed to determine the following physical requirements and properties:

a. **Solids, (% weight)** according to ASTM D2369: Acceptable range from NTPEP results (+/- 2%).

b. **Pigment (% weight)** according to ASTM D3723: Acceptable range from NTPEP results (+/- 2%).

c. **Density (wt/gal.)** according to ASTM D1475: Acceptable range from NTPEP results (+/-0.3 lbs/gal).

- d. **Viscosity (KU)** according to ASTM D562: Acceptable range from NTPEP results (+/-5KU).
- e. **Contrast Ratio** according to ASTM D2805 (2°,D 65): Paint shall show a dry hiding quality that will give a contrast ratio of at least 0.96 at (15 mil) wet film thickness.
- f. **Day Color, Luminance (Y%) - (without Drop-on Beads):**

Color testing results shall conform to the chromaticity coordinate limits that follow. Color determination for paint materials will be made without drop-on beads at least 24 hours after application in accordance with ASTM D6628.

Day Color, Chromaticity Coordinates (Without Drop-on Beads), High Build Paint									
	x	y	x	y	x	y	x	y	Y%
White	0.355	0.355	0.305	0.305	0.285	0.325	0.335	0.375	80.0 Min
Yellow	0.493	0.473	0.518	0.464	0.486	0.428	0.469	0.452	50.0-60.0

- g. **Settling properties:** Settling shall be no less than a rating of 8 when tested in accordance with the NTPEP Work Plan.
- h. **Freeze-thaw and heat stability:** Paint shall show no coagulation or change in viscosity greater than +/- 5 KU when tested in accordance with the NTPEP Work Plan.
- i. **Water resistance:** Paint shall show no blistering, peeling, wrinkling, softening, or loss of adhesion when tested in accordance with the NTPEP Work Plan.
- j. **VOC:** The VOC content shall be no greater than 150 grams/liter when tested in accordance with EPA Method 24.
- k. **Flash point:** Paint shall have a flash point of at least 201 degrees F when tested in accordance with ASTM D93, Pensky-Martens Closed Cup.
- l. **Infrared (IR) Scan:** Shall match IR scan from NTPEP.

Section 246.03(b) – Thermoplastic Marking Materials (Type B, Class I) is renumbered as 246.03(c) and replaced as follows:

Thermoplastic material shall be suitable for use on asphalt and hydraulic cement concrete pavement surfaces and shall be selected from the Materials Division’s Approved Products List No. 43.

The binder shall be either alkyd or hydrocarbon based. If an alkyd thermoplastic is used, the binder shall consist of synthetic resins, at least one of which is solid at room temperature, and high-boiling plasticizers. At least one-half of the binder composition shall be a maleic-modified glycerol ester of resin and shall be at least 10 percent by weight of the entire material formulation.

Thermoplastic marking materials shall be capable of application at pavement surface temperatures of 50 degrees Fahrenheit and above on all asphalt and hydraulic cement concrete pavement surfaces. Thermoplastic material shall be capable of successfully fusing to itself and previously applied thermoplastic pavement markings.

- 1. **Initial Approval** - Maintained retroreflectivity, color, luminance (Y%), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:
 - a. **Maintained Retroreflectivity:** The photometric quantity to be measured is the coefficient of retroreflected luminance (R_L) in accordance with ASTM E1710 for 30-meter geometry when measured in the skip line area.

**Coefficient of Retroreflected Luminance (R_L)
(mcd/ft²/fc) Thermoplastic**

Color	Initial	1 Year In-Service
White	300	250
Yellow	250	200

- b. **Day and Nighttime Color and Luminance (Y%):** According to ASTM D6628
- c. **Durability:** Thermoplastic shall have a durability rating of at least 8 as determined in the wheel path area when tested in accordance with the NTPEP Work Plan.
- d. **Skid Resistance:** The initial skid resistance shall be at least 45 BPN when tested per ASTM E303, if available.

2. Batch Testing:

Thermoplastic batch testing will be performed by the Department on samples obtained from the point of manufacture or from the field in accordance with the Materials Division's Manual of Instructions. The tests results will be compared against the following specifications and requirements:

- a. **Pigment and Glass Bead (% Weight)** according to ASTM D4451 82.0% Max
- b. **Intermix Glass Bead Content (% Weight)** according to AASHTO T 250 and ASTM D4797 30.0% Min
- c. **TiO₂ (%) for white thermoplastic** according to ASTM D1394 or equivalent method 10.0% Min
- d. **Binder (%)** according to AASHTO T 250/ASTM D4451 18.0% Min
- e. **Calcium Carbonate and Inert Fillers** 42.0 % Max
- f. **Day Color, Luminance (Y%) (Without Drop-on Beads):** Color testing results shall conform to the chromaticity coordinate limits that follow. Color determination for thermoplastic materials will be made without drop-on beads after cooling in accordance with AASHTO T 250 and ASTM D6628.

Day Color, Chromaticity Coordinates (Without Drop-on Beads), Thermoplastic

	x	y	x	y	x	y	x	y	Y%
White	0.355	0.355	0.305	0.305	0.285	0.325	0.335	0.375	80.0 Min
Yellow	0.499	0.466	0.545	0.455	0.518	0.432	0.485	0.454	40.0-60.0

- g. **Nighttime Yellow Color (with Drop-on Beads):** The initial nighttime color of yellow thermoplastic pavement marking material shall conform to the following CIE chromaticity coordinate requirements when tested in accordance with ASTM D6628 and VTM-111:.

Night Time Color, Chromaticity Coordinates (with Drop-on Beads) Thermoplastic

Color	1		2		3		4	
	x	y	x	y	x	y	x	y
Yellow	0.486	0.439	0.520	0.480	0.560	0.440	0.498	0.426

- h. **Water absorption:** Materials shall not have more than 0.5 percent retained water by weight when tested in accordance with ASTM D570, Procedure A.

- i. **Softening point:** Materials shall have a softening point of at least 194 degrees F as determined in accordance with ASTM E28.
- j. **Specific gravity:** The specific gravity of the thermoplastic compound at 77 degrees F shall be from 1.7 to 2.2.
- k. **Impact resistance:** The impact resistance shall be at least 10 inch-pounds at 77 degrees F after the material has been heated for 4 hours at 400 degrees F and cast into bars of 1-inch cross-sectional area, 3 inches long, and placed with 1 inch extending above the vise in a cantilever beam, Izod-type tester conforming to ASTM D256 using the 25 inch-pound scale.
- l. **No-Track Time:** Material shall set to bear traffic in not more than 2 minutes when the road temperature is 50 degrees F or above.
- m. **Intermixed Glass beads:** Glass beads shall conform to Section 234.
- n. **Flashpoint:** The material flashpoint shall be no less than 500 degrees F when tested in accordance with ASTM D92.

Section 246.03(c) Preformed Thermoplastic Pavement Marking Material (Type B, Class II) is renumbered as 246.03(d).

Section 246.03(d)1 Initial approval is amended to replace the first paragraph with the following:

Maintained retroreflectivity, color, luminance (Y%), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:

Section 246.03(d) Epoxy-Resin Pavement Marking Material (Type B, Class III) is renumbered as 246.03(e).

Section 246.03(e)1 Initial approval is amended to replace the first paragraph with the following:

Maintained retroreflectivity, color, luminance (Y%), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:

Section 246.03(e) Polyurea Pavement Marking Material (Type B, Class VII) is renumbered as 246.03(f).

Section 246.03(f)1 Initial approval is amended to replace the first paragraph with the following:

Maintained retroreflectivity, color, luminance (Y%), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:

Section 246.03(f) Permanent, Plastic-Backed, Preformed Tapes (Type B, Class IV and Type B, Class VI) is renumbered as 246.03(g).

Section 246.03(g)1 Initial approval is amended to replace the first paragraph with the following:

Maintained retroreflectivity, color, luminance (Y%), durability, and adhesion shall conform to the following requirements after the material has been installed on the test deck for 1 year:

Section 246.03(g) – Temporary Pavement Marking Materials is renumbered as 246.03(h) and replaced with the following:

Temporary Pavement Marking Materials other than paint shall consist of Type D, Class III, removable, wet reflective tape and Type E removable black, non-reflective tape. Determination of conformance will include, but not be limited to, the evaluation of test data from AASHTO's NTPEP or other VDOT Test Facilities.

1. Wet Reflective, Removable Tape (Type D, Class III):

Wet reflective, removable tape shall be a durable, retro-reflective pliant material consisting of a mixture of polymeric materials, pigments, and glass beads (reflective optics) evenly distributed throughout its cross-sectional area and embedded into the surface. This tape shall be suitable for use on both asphalt and hydraulic cement concrete surfaces and shall be selected from the Department's Approved List 17.

a. **Initial Approval** - Maintained retroreflectivity (dry and wet), color, luminance (Y%), and adhesive bond rating shall conform to the following requirements after the material has been installed on the test deck for 90 days:

(1) **Maintained Dry Retroreflectivity:** The dry photometric quantity to be measured is the coefficient of retroreflected luminance (R_L) in accordance with ASTM E1710 for 30-meter geometry when measured in the skip line or centerline areas.

Coefficient of Retroreflected Luminance (R_L) (mcd/ft²/fc) Dry Retro Removable Tape-Type D, Class III

Color	Initial	90 Days In-Service
White	250	150
Yellow	200	100

(2) **Maintained Wet Retroreflectivity:** The wet photometric quantity to be measured is the coefficient of retroreflected luminance (R_L) in accordance with VTM 124 (Visual Evaluation or ASTM E2177, Recovery Method) when measured in the skip line or centerline areas.

Coefficient of Retroreflected Luminance (R_L) (mcd/ft²/fc) Wet Retro Removable Tape-Type D, Class III

Color	Initial	90 Days In-Service
White	150	100
Yellow	125	75

(3) **Day and Nighttime Color and Luminance (Y%):** According to ASTM D6628.

(4) **Adhesive Bond Rating:** The average adhesive bond rating (from transverse and longitudinal lines) shall be 3 or higher according the NTPEP Work Plan.

(5) **Skid Resistance:** The initial skid resistance shall be at least 45 BPN when tested according to ASTM E303, if available.

(6) **Thickness:** Per the manufacturer's recommendation.

(7) **Adhesion:** No line shall be displaced, torn or missing.

b. **Batch Testing:**

Wet reflective, removable tape batch testing will be performed by the Department on samples obtained from the point of manufacture or from the field in accordance with the Materials Division's Manual of Instructions. Test results shall be compared against the following specifications and requirements:

- (1) **Retroreflectivity:** Refer to initial requirements
- (2) **Day and Night Color and Luminance:** Refer to initial requirements
- (3) **Thickness:** Refer to initial requirements
- (4) **Width:** The width shall be no less than the nominal width and no greater than 1/8" of the nominal width.
- (5) **Length:** The length shall be no less than the length stated on the manufacturer's packaging.
- (6) **Skid Resistance:** Refer to initial requirements.

2. **Removable Black, Non-Reflective Tape (Type E):**

Removable black, non-reflective tape shall be a durable, pliant material consisting of a mixture of polymeric materials, pigments and a friction material evenly distributed throughout its cross-sectional area and embedded into the surface. Removable black, non-reflective tape shall be suitable for use on asphalt concrete pavement surfaces, and shall be selected from the Department's Approved List 17.

- a. **Initial Approval** - Maintained adhesive bond rating shall conform to the following requirements after the material has been installed on the test deck for 90 days:
 - (1) **Adhesive Bond Rating:** The average adhesive bond rating (from transverse and longitudinal lines) shall be 3 or higher according to the NTPEP Work Plan.
 - (2) **Skid Resistance:** The initial skid resistance shall be at least 45 BPN when tested according to ASTM E303, if available.
 - (3) **Thickness:** Per the manufacturer's recommendation.
 - (4) **Adhesion:** No line shall be displaced, be torn or missing.

b. **Batch Testing**

Black removable, non-reflective tape batch testing will be performed by the Department on samples obtained from the point of manufacture or from the field in accordance with the Materials Division's Manual of Instructions. Test results shall be compared against the following specifications:

- (1) **Skid Resistance:** Refer to initial requirements
- (2) **Thickness:** Refer to initial requirements
- (3) **Width:** The width shall be no less than the nominal width and no greater than 1/8" of the nominal width.

(4) **Length:** The length shall be no less than the length stated on the manufacturer's packaging.

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 704 – PAVEMENT MARKINGS AND MARKERS

SECTION 704 – PAVEMENT MARKINGS AND MARKERS of the Specifications is amended as follows:

Section 704.02 – Materials is amended to replace the first paragraph with the following:

For Type B, Class VI pavement marking materials that are to be applied to latex emulsion or slurry seal surfaces, the selected Type B, Class VI manufacturer shall be a manufacturer that approves and warrants their product for application on that type of surface.

Section 704.03 – Procedures is amended to replace the second paragraph with the following:

The Contractor shall have a certified Pavement Marking Technician present during all temporary pavement marking, permanent pavement marking, and pavement marker operations, except Flexible Temporary Pavement Marker (FTPM) installation.

Section 704.03 – Procedures is amended to replace the fourth through tenth paragraph with the following:

If the Contractor cannot have permanent pavement markings installed within the time limits specified, the Contractor shall install and maintain temporary pavement markings within the same time limits at no additional cost to the Department until the permanent pavement markings can be installed. Installation, maintenance, and removal or eradication of temporary pavement markings shall be according to Section 512.

The Contractor may mark the locations of proposed permanent markings on the roadway by installing premarking materials. Premarkings may be accomplished by installing removable tape, chalk, or lumber crayons, except pavement markings such as stop lines, crosswalks, messages, hatching, etc., shall be premarked using chalk or lumber crayons. Premarkings for yellow markings may be white or yellow. Premarkings for other colors shall be white.

When tape is used as a premarking material, premarking shall consist of 4- inch by 4-inch-maximum squares or 4-inch-maximum diameter circles spaced at 100-foot minimum intervals in tangent sections and 50-foot minimum intervals in curved sections. At locations where the pavement marking will switch colors (e.g., gore marking) the ends of the markings may be premarked regardless of the spacing.

When the Contractor uses chalk or lumber crayon as a premarking, the entire length of the proposed pavement marking may be premarked.

Premarkings shall be installed so their installation will not affect the adhesion of the permanent pavement markings. When removable tape is used as the premarking material and the lateral location of such premarkings to location of the final pavement markings exceeds 6 inches, the tape shall be removed at no additional cost to the Department.

The Contractor shall exercise caution and protect the public from damage while performing pavement marking operations. The Contractor shall be responsible for the complete preparation of the pavement surface, including, but not limited to, removing dust, dirt, loose particles, oily residues, curing compounds, concrete laitance, residues from eradication, and other foreign matter immediately before installing pavement markings. The pavement surface shall be clean and dry at the time of pavement marking installation and shall be tested in accordance with VTM 94 before permanent installation, with the VTM 94 test results noted on Form C-85. The Contractor shall

provide the equipment indicated in VTM 94 that are needed to perform the moisture test before application.

Section 704.03 – Procedures is amended by replacing the thirteenth paragraph with the following:

Non-truck mounted equipment shall be regulated to allow for calibration of the amount and type of material applied.

Section 704.03 – Procedures is amended to replace the eighteenth paragraph with the following:

Glass beads and retroreflective optics shall be applied at the rate specified herein or as specified in the Department's Approved List for the specific pavement marking product. Beads and optics shall be evenly distributed over the entire lateral and longitudinal surface of the marking. The Contractor shall apply beads to the surface of liquid markings with a bead dispenser attached to the applicator that shall uniformly dispense beads simultaneously on and into the just-applied marking. The bead dispenser shall be equipped with a cut-off control synchronized with the applied marking material cut off control so that the beads are applied totally on the marking. Beads shall be applied while the liquid marking is still fluid, resulting in approximately 60% embedment in the marking's surface. Beads installed on crosswalks and stop lines on roadways with curbs only (no gutter) may be hand applied for two feet at the end of each line next to the curb with 100 percent of the beads embedded 50% to 60% into the marking's surface.

Section 704.03(a)1 – Type A markings is replaced with the following:

Type A markings shall be applied in accordance with the manufacturer's installation instructions. When applying atop existing pavement markings, the existing marking shall first be swept or eradicated to the extent necessary to ensure that the surface of the existing marking is clean, chalk free (not powdery), and well adhered.

Glass beads for Type A, Class I markings shall be AASHTO M 247 Type 1 Beads applied at a minimum rate of 6 pounds per gallon of paint

Retroreflective optics for Type A, Class II markings shall be applied as noted in the Department's Approved List 20 for the selected pavement marking product.

The Contractor may substitute Type A, Class I cold weather paint (traffic paint designed for application at temperatures below 40 °F) for Type A, Class I conventional paint at no additional cost to the Department. Cold weather paint shall be from the Department's Approved List 20.

Section 704.03(a)2 – Type B markings is amended to replace the third paragraph with the following:

Non-truck mounted equipment for application of thermoplastic material shall include an extrude die with a burner, temperature controller, agitator, and mechanical bead applicator to allow for the correct amount of material to be applied.

Section 704.03(a)2a – Thermoplastic (Class I) is amended to replace the fourth through sixth paragraphs with the following:

Thermoplastic shall not be applied over existing pavement markings of materials other than paint or thermoplastic, unless the existing marking is 90 percent percent worn away or eradicated. When applying thermoplastic over existing paint or thermoplastic, the existing marking shall first be swept or eradicated to the extent necessary to ensure that the surface of the existing marking is clean, chalk free (not powdery), and well adhered.

Thermoplastic marking material shall be applied at thickness of 90 mils (\pm 5 mils) above the riding surface, whether dense or open graded surface.

Glass beads and retroreflective optics shall be surface applied at the rate of 10 pounds per 100 square feet unless specified otherwise on the Materials Division's Approved Products List 43 for the specific thermoplastic product.

Section 704.03(a)2b – Preformed thermoplastic (Class II) is amended to replace the first and second paragraphs with the following:

Preformed thermoplastic (Class II) material shall be installed in accordance with the manufacturer's installation instructions. A primer or sealer manufactured by or recommended by the preformed thermoplastic manufacturer shall be applied to all hydraulic cement concrete surfaces and to asphalt concrete surfaces in accordance with the manufacturer's installation instructions.

Preformed thermoplastic shall not be applied over existing pavement markings of materials other than paint or thermoplastic, unless the existing marking is 90 percent worn away or eradicated. When applying preformed thermoplastic over existing paint or thermoplastic, the existing marking shall first be swept or eradicated to the extent necessary to ensure the surface of the existing marking is clean, chalk free (not powdery), and well adhered.

Permanent transverse rumble strips shall be applied using two strips of white Type B, Class II material. The bottom strip shall be 250 mils thick and 4 inches wide, and the top strip shall be 125 mils thick and 2 inches wide (centered atop the bottom strip), unless noted otherwise in the plans. Transverse rumble strips shall be installed in arrays as per the Standard Drawings and the plans.

Section 704.03(b) – Pavement messages and symbols markings is amended to replace the second paragraph with the following:

Surface temperature at time of application shall be in accordance with manufacturer's installation instructions. If the installation instructions do not specify minimum surface temperature, then the markings shall not be installed unless the surface temperature at time of application is 50°F or higher. Surface temperature requirements shall not be considered met if the temperature is forecasted to drop below the minimum within two hours of application. The Contractor may heat the pavement for a short duration to dry the pavement surface and bring the surface temperature to within the allowable temperatures for pavement marking installation, at no extra cost to the Department. Heat torch temperatures shall not exceed 300°F. The Contractor shall monitor pavement temperature to ensure it does not rise above 120°F at any time. Any damage to the pavement shall be promptly repaired at no extra cost to the Department.

Message and symbol markings include, but shall not be limited to, those detailed in Standard Drawing PM-10.

The sizes and shapes of symbols and characters shall match the size and shape specified in Standard Drawing PM-10 or elsewhere in the Contract. Hand-drawn or "stick" symbols or characters will not be allowed.

Table VII-3 is replaced with the following:

**TABLE VII-3
Pavement Markings**

Type	Class	Name	Film Thickness (mils)	Pavement Surface	Application Limitations	Appr. List No.
------	-------	------	-----------------------------	---------------------	----------------------------	----------------------

A	I	Conventional or Cold-Weather Traffic Paint	15 ± 1 when wet	AC HCC	May be applied directly after paving operations	20
A	II	High Build Traffic Paint	25 ± 2 when wet	AC HCC	May be applied directly after paving operations	20
B	I	Thermoplastic Alkyd	90 ± 5	AC HCC	May be applied directly after paving operations	43
	I	Thermoplastic Hydrocarbon	90 ± 5 when dry	AC HCC	Do not apply less than 30 days after paving operations	43
	II	Preformed Thermoplastic	120-130	AC HCC	Manufacturers installation instructions	73
	III	Epoxy resin	20 ± 1 when wet	AC HCC	Manufacturers installation instructions	75
	IV	Plastic-backed preformed Tape	60 - 120	AC HCC	Manufacturer's installation instructions	17
	VI	Patterned preformed Tape	20 min ¹ 65 min ²	AC HCC	(Note 4)	17
	VII	Polyurea	20 ± 1	AC HCC	Manufacturer's installation instructions	74
D	III	Wet Reflective Removable tape	(Note 3)	AC HCC	Temporary pavement marking	17
E		Removable black tape (Non-Reflective)	(Note 3)	AC	Temporary pavement marking for covering existing markings	17

¹Thinnest portion of the tape's cross section.

²Thickest portion of the tape's cross section.

³In accordance with manufacturer's installation instructions.

⁴In accordance with the manufacturer's installation instructions, except that Type B, Class VI markings on new plant mix asphalt surfaces shall be inlaid into the freshly installed asphalt surface and not surface-applied.

Section 704.03(d)1 – Snowplowable raised pavement markers is renamed **Section 704.03(d)1 – Inlaid Pavement Markers** and replaced as follows:

Inlaid Pavement Markers shall be installed with retroreflectors with front-side and back-side colors as per Standard Drawing PM-8.

The Contractor shall not install markers on existing bridge decks. Inlaid Pavement Markers shall be installed on new bridge decks where required by the Plans.

Inlaid Pavement Markers shall be placed in relation to pavement joints and cracks as follows:

- In existing Asphalt Concrete pavement, new or existing Hydraulic Cement Concrete pavement, and bridge decks, the edge of the groove shall be at least 2 inches from pavement joints and cracks, ensuring that the finished line of markers is straight in accordance with the tolerance for pavement markings specified in Section 704.03 of the Specifications. Offset from the longitudinal joint shall take precedence over straightness of the line of markers.
- In new Hydraulic Cement Concrete pavement or when installed in conjunction with new latex modified microsurfacing or slurry seal treatments, the edge of the groove shall be at least 2 inches from all longitudinal and transverse surface course pavement joints and 1 inch maximum off alignment from the corresponding pavement marking line. The finished line of markers shall be straight in accordance with the tolerance for pavement markings

specified in Section 704.03 of the Specifications. Straightness of the line of markers and alignment with the corresponding pavement marking line takes precedence over offset from the surface course joint.

Retroreflectors shall be affixed to holders, using an adhesive from the Department's Approved List 22 (Inlaid Pavement Markers) prior to installation.

Inlaid Pavement Markers shall be installed as per Standard Drawing PM-8.

Tapered grooves and plunge cuts shall be cut using diamond blades that can accurately control the groove dimensions, resulting in smooth uniform tapers and smooth groove bottoms and ensuring the pavement does not tear or ravel. The Contractor shall remove all dirt, grease, oil, loose or unsound layers, and any other material from the groove which would reduce the bond of the adhesive. Pavement surfaces shall be maintained in a clean and dry condition until the marker is placed.

Holders shall be installed in the same shift as grooving.

The epoxy adhesive shall be thoroughly mixed until it is uniform in color, and applied in accordance with the manufacturer's installation instructions. The Contractor shall partially fill the plunge cut with sufficient epoxy adhesive such that the epoxy adhesive bed area is equal to the bottom area of the holder. The Contractor shall then set the holder in the epoxy adhesive such that the breakaway tabs are resting on the road surface, the holder is centered in the cut, and then fill in additional epoxy adhesive if necessary so the entire perimeter of the holder is completely surrounded in epoxy, with the epoxy level with the edge of the holder in accordance with the manufacturer instructions.

The Contractor shall remove all adhesive and foreign matter from the face of the retroreflector or replace the retroreflector if adhesive and foreign matter cannot be removed. The marker shall be replaced if it is not properly positioned and adhered in the plunge cut.

Section 704.03(d)2 – Raised Pavement Markers is renamed **Nonplowable Raised Pavement Markers** and is replaced with the following:

Nonplowable raised pavement markers shall be bonded to the surface in accordance with the manufacturer's installation instructions. The bonding material shall be from the Department's Approved List 22 for the specific marker.

Section 704.04 – Measurement and Payment is amended to replace the fifth paragraph with the following:

Pavement markers will be measured in units of each for the type specified and will be paid for at the contract unit price per each. This price shall include surface preparation, furnishing, installing, prismatic retroreflectors, pavement cutting, adhesive, holders, quality control tests, and daily log.

Section 704.04—Measurement and Payment is amended by revising the Pay Item Table as follows:

The following pay items are removed:

Pay Item	Pay Unit
Pavement message marking (Message)	Each or Linear Foot

The following pay items are inserted:

Pay Item	Pay Unit
Pavement message marking (Message, Type or class material)	Each or Linear Foot

ATTACHMENT - 8

**PROCEDURE FOR BACKFILLING OF
UTILITY EXCAVATIONS IN PUBLIC RIGHT-OF-WAY**

PROCEDURE FOR BACKFILLING
OF UTILITY EXCAVATIONS
IN PUBLIC RIGHT-OF-WAY

Open cutting the roadway is considered as the least desirable alternative to boring, jacking or pushing and permits to open cut will not be issued until other methods of installation have been attempted and only then by special permission. All Contractors and Utility owners who perform work within the public rights-of-way of the City of Bristol, Virginia, shall take the following steps:

1. Obtain the required permit to work in the right-of-way.
2. Set up the required traffic control devices as per the current editions of the Virginia Work Area Protection Manual and the Manual On Uniform Traffic Control Devices. The Contractor or utility owner shall be responsible for all traffic control devices and manpower required to satisfactorily complete the job.
3. Bore, jack or push under the roadway for the proposed installation.
4. Should open cutting be permitted, the roadway shall be saw cut with squared corners, asphalt concrete and unsuitable material removed. All such materials shall be disposed of, off-site.
5. Perform the permitted work.
6. On pipes, cable and/or wire installations, place appropriately colored plastic ribbon tape, no less than 6 inches, nor more than 18 inches, directly over and parallel to the facility. Fill the excavated area according to one of the following accepted methods:

In the LIVE LOAD ZONE*

- VDOT No. 21a Aggregate (see Dwg. No. UTR-1).
- Flowable Fill (see Dwg. No. UTR-2).

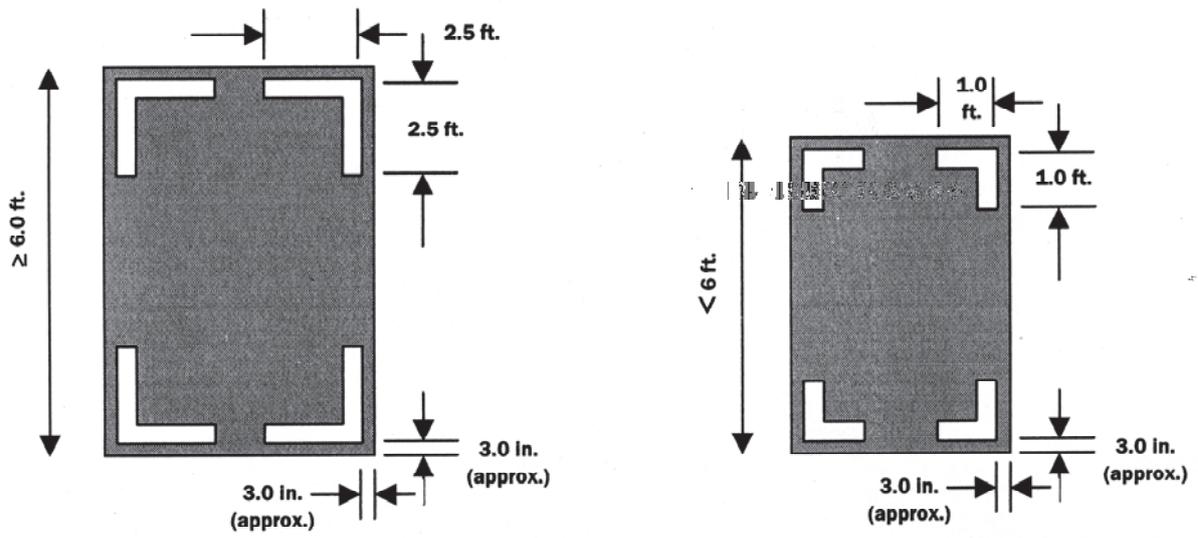
Outside the LIVE LOAD ZONE*

- Backfill shall be composed of suitable regular excavation, borrow, select material, or subbase material as directed by the City Engineer. (see Dwg. No. UTR-3).
- *Live Load Zone is defined as the zone beneath a roadway including the area within a 1:1 slope projected from the edge of pavement. (see Dwg. No. UTR-3).

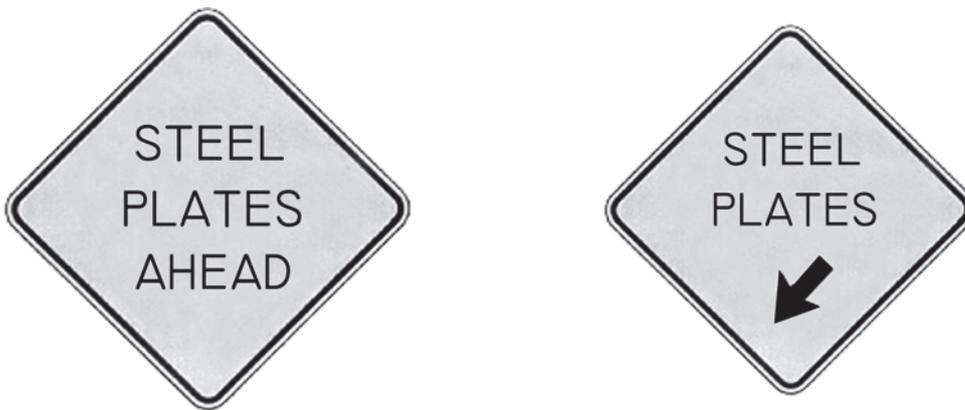
7. Where directed by the City Engineer, the Permittee shall place 1-inch thick steel plates over the excavation as per the attached drawings to allow the flowable fill sufficient time to set or if the asphalt surface cannot be full restored. Steel plates shall be pinned with spikes to ensure minimum movement of the plates. Reinforcing rods are not an

acceptable method for pinning plates. Along all edges of the steel plate place an 18” asphalt concrete wedge using “hot mix” materials. In the event that “hot mix” materials cannot be obtained due to asphalt plants being closed, “cold mix” materials may be substituted as a temporary measure. Restore normal traffic flow subject to placement of necessary warning devices as described below.

8. Proper traffic control warning devices shall remain in place to advise motorists and pedestrians of the work area. This shall include STEEL PLATES AHEAD signage placed at a minimum of 100’ in advance of the steel plates and STEEL PLATES / ARROW signage placed at the steel plates. All steel plates shall be marked with durable, highly reflective white pavement marking tape, no less than 4” in width, conforming to Type B, Class VI VDOT specifications and shall be recommended for turning movements by the manufacturer. See attached drawings for sign and tape details.
9. When flowable fill has set up, remove steel plates. Fill the remaining excavation with 6 inches of asphalt concrete, in compacted lifts, not to exceed 3 inches. Place the required identification marker in the center of the repair prior to rolling of the final lift of asphalt concrete. Any subcontractor performing work for a Utility owner shall place the appropriate identification marker in the center of the repair prior to rolling of the final lift of asphalt concrete. The finished surface shall be smooth and uniform. The City Engineer shall determine the type of asphalt concrete to be used and this designation shall appear on the permit.
10. The Contractor or Utility owner shall notify the Office of City Engineer upon completion of the work. Periodic inspections will be made to ensure those proper methods and specified materials have been employed to effect closure. The City Engineer or his agent shall make final inspection for acceptance.
11. Depending on the location and nature of the work and to ensure a smooth and uniform transition, the Contractor or Utility owner may be required to cold plane and resurface an area larger than that of the excavated area.
12. Due to the volume of traffic on certain streets in the City of Bristol, work may be restricted during periods when traffic is heaviest. The hours of restriction will appear on the permit, should it be required.
13. The Contractor or Utility owner shall be responsible for maintenance of the repair for a period of five years from the date of acceptance.



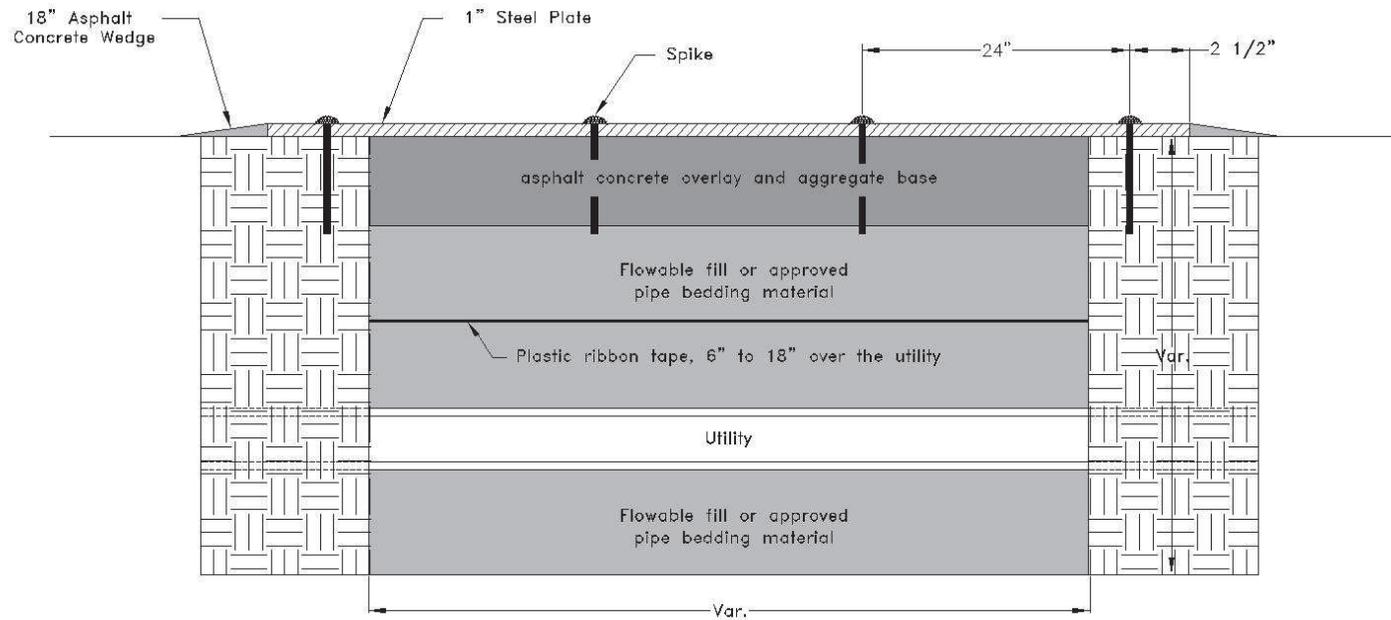
Steel Plate Reflective White Tape Detail



Steel Plate Warning Signs Detail

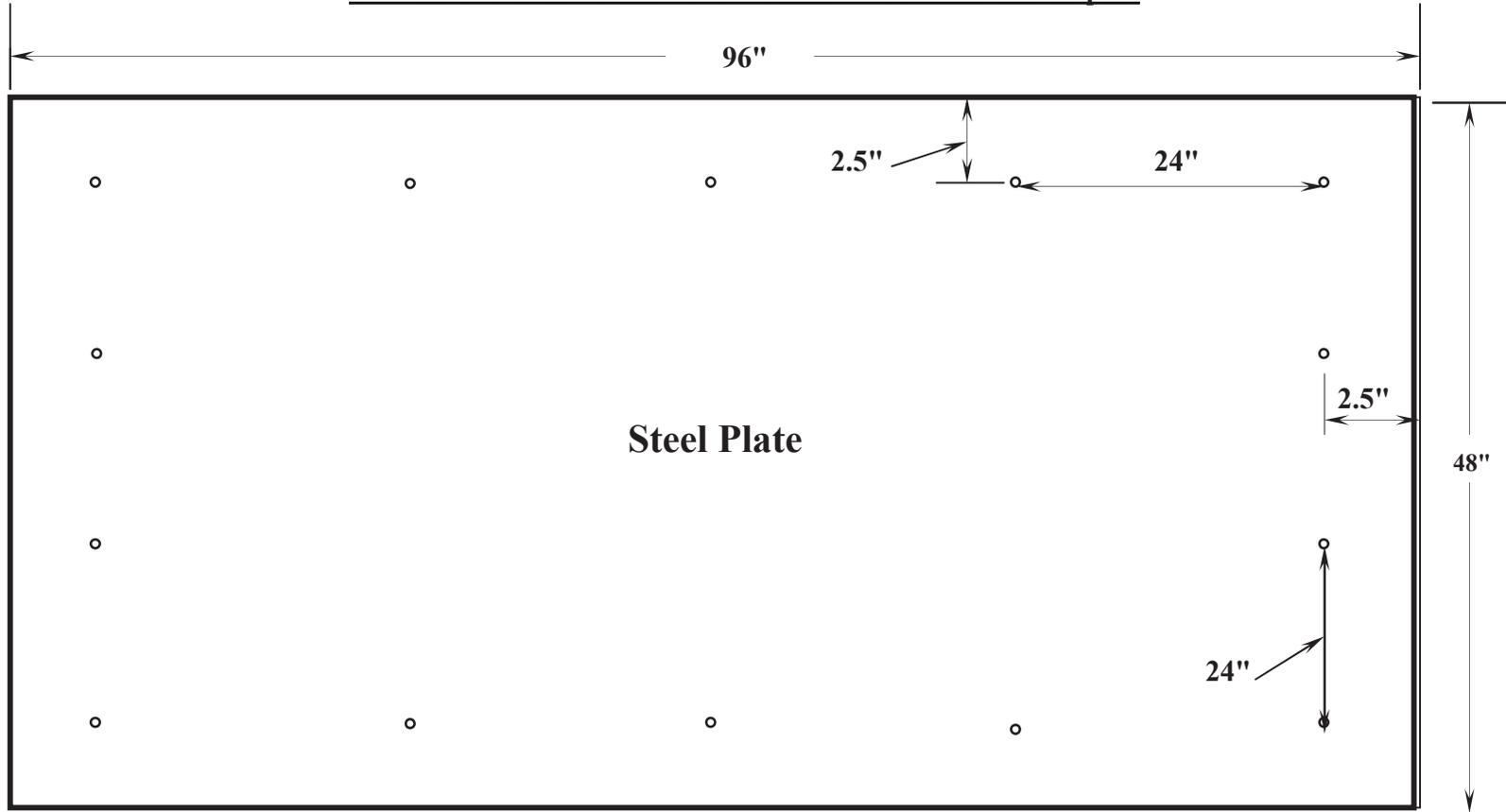
DETAIL OF PLATE STEEL PLACEMENT AND
TYPICAL BACKFILLING METHOD
FOR OPEN CUT REPAIR

Asphalt concrete overlay shown under steel plate only to denote dimensions and location. Placed after removal of plate.
Asphalt concrete wedge shall provide a smooth transition from existing asphalt concrete to steel plate travel surface.
Bituminous sealer shall be placed around holes and on bottom of spike heads.

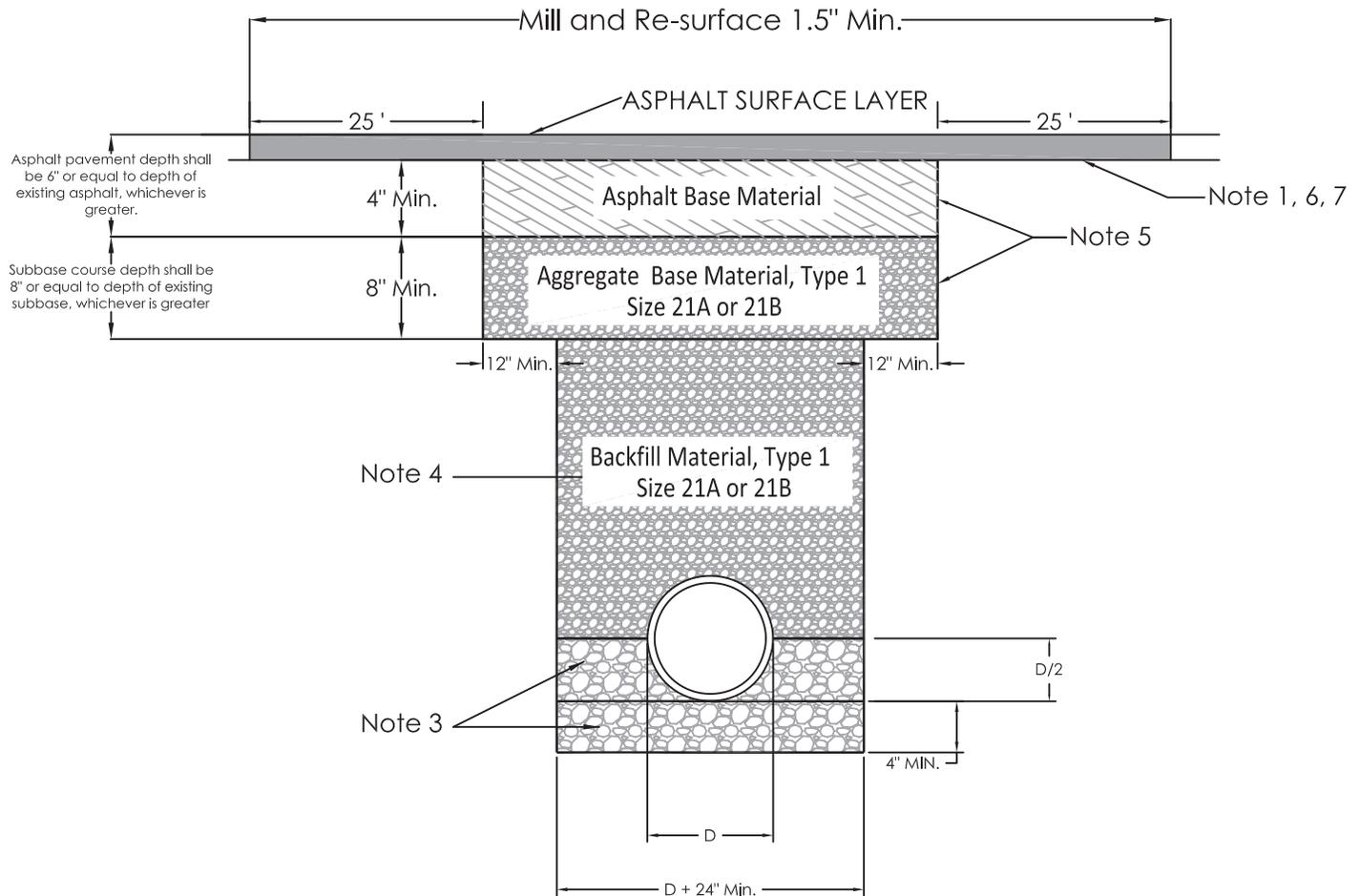


Drill Hole Pattern Detail

Note: Holes shall be drilled to accommodate common rail spike



Effective Date 11/11/11



NOTES:

1. ALL PAVEMENTS SHALL BE SAW CUT WITH NEAT UNIFORM LINES PRIOR TO EXCAVATION. MILL AND RESURFACE 1.5" MINIMUM.
2. SHOULD CONCRETE PAVEMENT BE ENCOUNTERED DURING EXCAVATION PLEASE CONTACT THE CITY ENGINEER IMMEDIATELY.
3. PIPE BEDDING MATERIAL SHALL BE CRUSHER RUN (VDOT NO. 25 OR 26). ALTERNATE MATERIAL MUST BE APPROVED BY THE CITY ENGINEER. (Pipe bedding shall be lightly and uniformly compacted and shall be carefully shaped so that the lower section of the pipe exterior is in full contact with the bedding material for at least 10 percent of the overall height of the pipe. Bedding material shall be shaped to accommodate the bell portion of the pipe when bell and spigot pipe is used. The depth of bedding material shall be at least 4 inches, or as specified on the plan or as directed by the Engineer.)
4. BACKFILL MATERIAL SHALL BE VDOT NO. 21A or 21B AGGREGATE, PLACED IN LOOSE LIFTS NOT EXCEEDING 6" AND COMPACTED TO AT LEAST 95% MAXIMUM DRY DENSITY WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE (VTM-1) WITH THE USE OF MECHANICAL TAMPERS OR VIBRATORY ROLLERS. WATER COMP ACTION IS NOT PERMITTED.
ALL TESTING SHALL BE PERFORMED AND CERTIFIED BY A GEOTECHNICAL ENGINEER OR A VDOT-CERTIFIED TECHNICIAN. RESULTS SHALL BE PROVIDED TO THE INSPECTOR WITHIN 24 HOURS OF TESTING COMPLETION. THE COST OF ALL TESTING IS THE RESPONSIBILITY OF THE PERMITTEE. FIELD DENSITY TESTING METHODS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PERFORMING ANY TESTS.
5. DEPTHS FOR AGGREGATE BASE, ASPHALT BASE AND ASPHALT SURFACE COURSE SHALL BE DETERMINED BY EACH LOCATION AND THE DEPTHS OF MATERIAL ON THE EXISTING STREET. THE CONTRACTOR SHALL CALL THE INSPECTOR AFTER THE TRENCH HAS BEEN OPENED TO DETERMINE THE DEPTHS REQUIRED. THE MINIMUM DEPTHS IN ANY CASE SHALL BE 8" OF AGGREGATE BASE, 4" ASPHALT BASE AND 2" ASPHALT SURFACE COURSE.
6. THE REPAIR SHALL BE RECTANGULAR AND SAW CUT IN STRAIGHT, UNIFORM LINES THAT ARE ALIGNED WITH THE STREET CENTERLINE. WHEN EDGES OF PAVEMENT HAVE BEEN UNDERMINED, PAVEMENT SHALL BE REMOVED TO A NEAT LINE 25' BEYOND THE UNDERMINED AREA. ANY INITIAL PAVEMENT REPAIR WITH AN AREA GREATER 40 SQUARE FEET MAY BE NON-RECTANGULAR, HOWEVER, THE REPAIR SHALL BE SAW CUT IN STRAIGHT, UNIFORM LINES.
7. TACK COAT IS REQUIRED ON ALL SURFACES THAT WILL CONTACT THE NEW SURFACE LAYER.
8. PARTIAL LANE MILLING IS NOT ALLOWED.



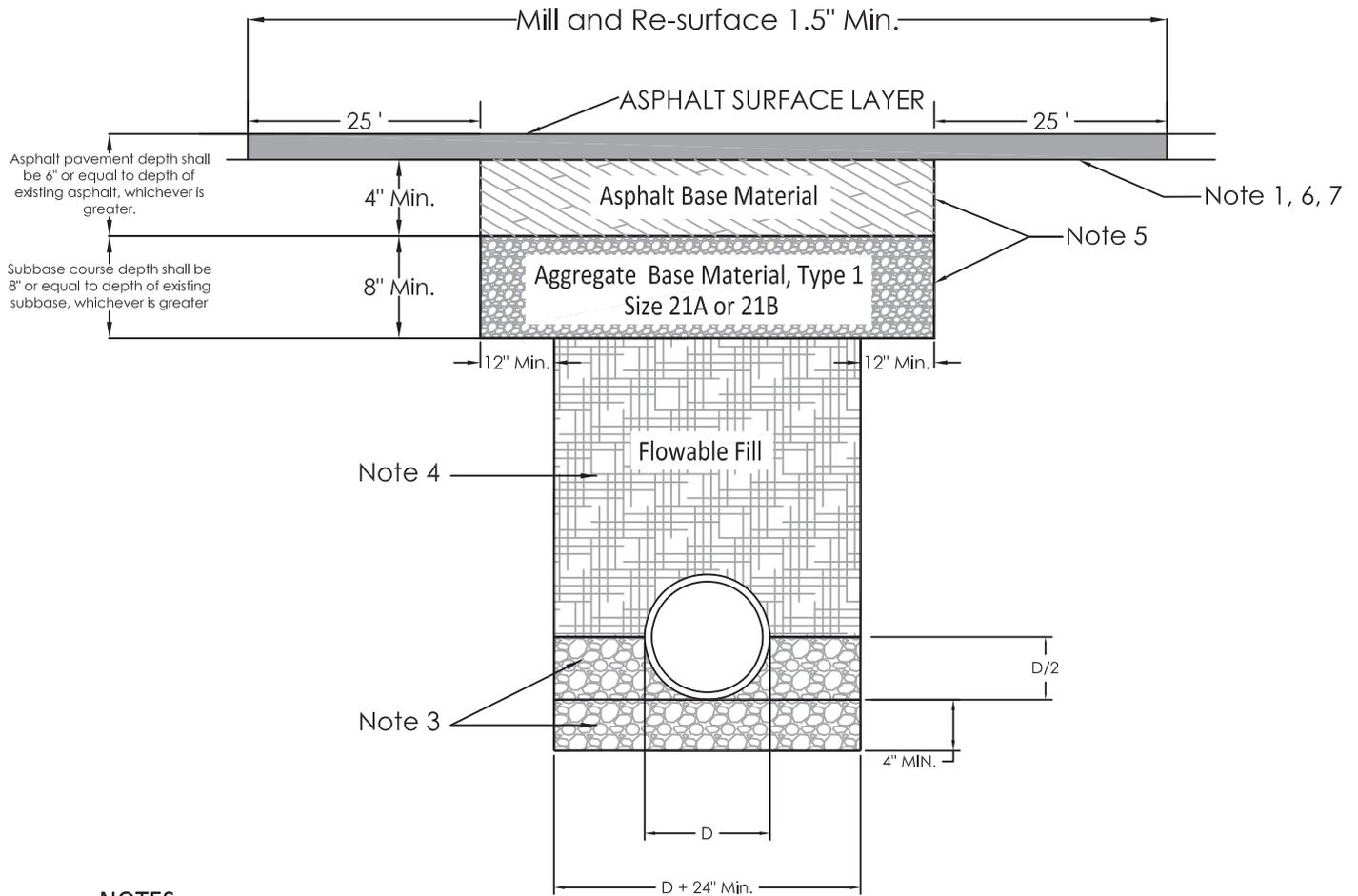
CITY OF
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UTILITY TRENCH REPAIR IN PAVEMENT USING VDOT NO. 21A AGGREGATE

DATE: JULY 1, 2012 (Rev.2018)
SCALE: N.T.S.

DRAWING NO: UTR-1



NOTES:

1. ALL PAVEMENTS SHALL BE SAW CUT WITH NEAT UNIFORM LINES PRIOR TO EXCAVATION
2. SHOULD CONCRETE PAVEMENT BE ENCOUNTERED DURING EXCAVATION PLEASE CONTACT THE CITY ENGINEER IMMEDIATELY.
3. PIPE BEDDING MATERIAL SHALL BE CRUSHER RUN (VDOT NO. 25 OR 26). ALTERNATE MATERIAL MUST BE APPROVED BY THE CITY ENGINEER. (Pipe bedding shall be lightly and uniformly compacted and shall be carefully shaped so that the lower section of the pipe exterior is in full contact with the bedding material for at least 10 percent of the overall height of the pipe. Bedding material shall be shaped to accommodate the bell portion of the pipe when bell and spigot pipe is used. The depth of bedding material shall be at least 4 inches, or as specified on the plan or as directed by the Engineer.)
4. BACKFILL MATERIAL SHALL BE FLOWABLE FILL MEETING THE REQUIREMENTS OF VDOT SPECIAL PROVISION FOR FLOWABLE BACKFILL. THE MATERIAL MUST BE PLANT CERTIFIED TO PROVIDE A 28-DAY COMPRESSIVE STRENGTH BETWEEN 30 AND 200 PSI. A CERTIFICATE OF MIX DESIGN MUST BE SUBMITTED TO THE INSPECTOR PRIOR TO PLACING THE MATERIAL IN THE TRENCH. A MINIMUM OF FOUR 6X12 TEST CYLINDERS SHALL BE TAKEN EVERY 50 CY OF PLACEMENT. CYLINDERS SHALL BE TESTED BY A QUALIFIED TESTING LABORATORY FOR 28-DAY STRENGTH. RESULTS SHALL BE PROVIDED TO THE INSPECTOR WITHIN 24 HOURS OF TESTING COMPLETION. THE COST OF THE TESTING IS THE RESPONSIBILITY OF THE PERMITTEE. IF THE REPORT INDICATES THE COMPRESSIVE STRENGTHS ARE NOT BETWEEN 30 AND 200 PSI, THE PERMITTEE WILL BE RESPONSIBLE FOR REMOVING AND REPLACING THE BACKFILL WITH ACCEPTABLE BACKFILL AND COMPLETING THE RESTORATION OF THE STREET AT NO COST TO THE CITY.
5. DEPTHS FOR AGGREGATE BASE , ASPHALT BASE AND ASPHALT SURFACE COURSE SHALL BE DETERMINED BY EACH LOCATION AND THE DEPTHS OF MATERIAL ON THE EXISTING STREET. THE CONTRACTOR SHALL CALL THE INSPECTOR AFTER THE TRENCH HAS BEEN OPENED TO DETERMINE THE DEPTHS REQUIRED. THE MINIMUM DEPTHS IN ANY CASE SHALL BE 8" OF AGGREGATE BASE, 4" ASPHALT BASE AND 2" ASPHALT SURFACE COURSE.
6. THE REPAIR SHALL BE RECTANGULAR AND SAW CUT IN STRAIGHT, UNIFORM LINES THAT ARE ALIGNED WITH THE STREET CENTERLINE. WHEN EDGES OF PAVEMENT HAVE BEEN UNDERMINED, PAVEMENT SHALL BE REMOVED TO A NEAT LINE 25' BEYOND THE UNDERMINED AREA. ANY INITIAL PAVEMENT REPAIR WITH AN AREA GREATER 40 SQUARE FEET MAY BE NON-RECTANGULAR, HOWEVER, THE REPAIR SHALL BE SAW CUT IN STRAIGHT, UNIFORM LINES.
7. TACK COAT IS REQUIRED ON ALL SURFACES THAT WILL CONTACT THE NEW SURFACE LAYER.
8. PARTIAL LANE MILLING IS NOT ALLOWED.

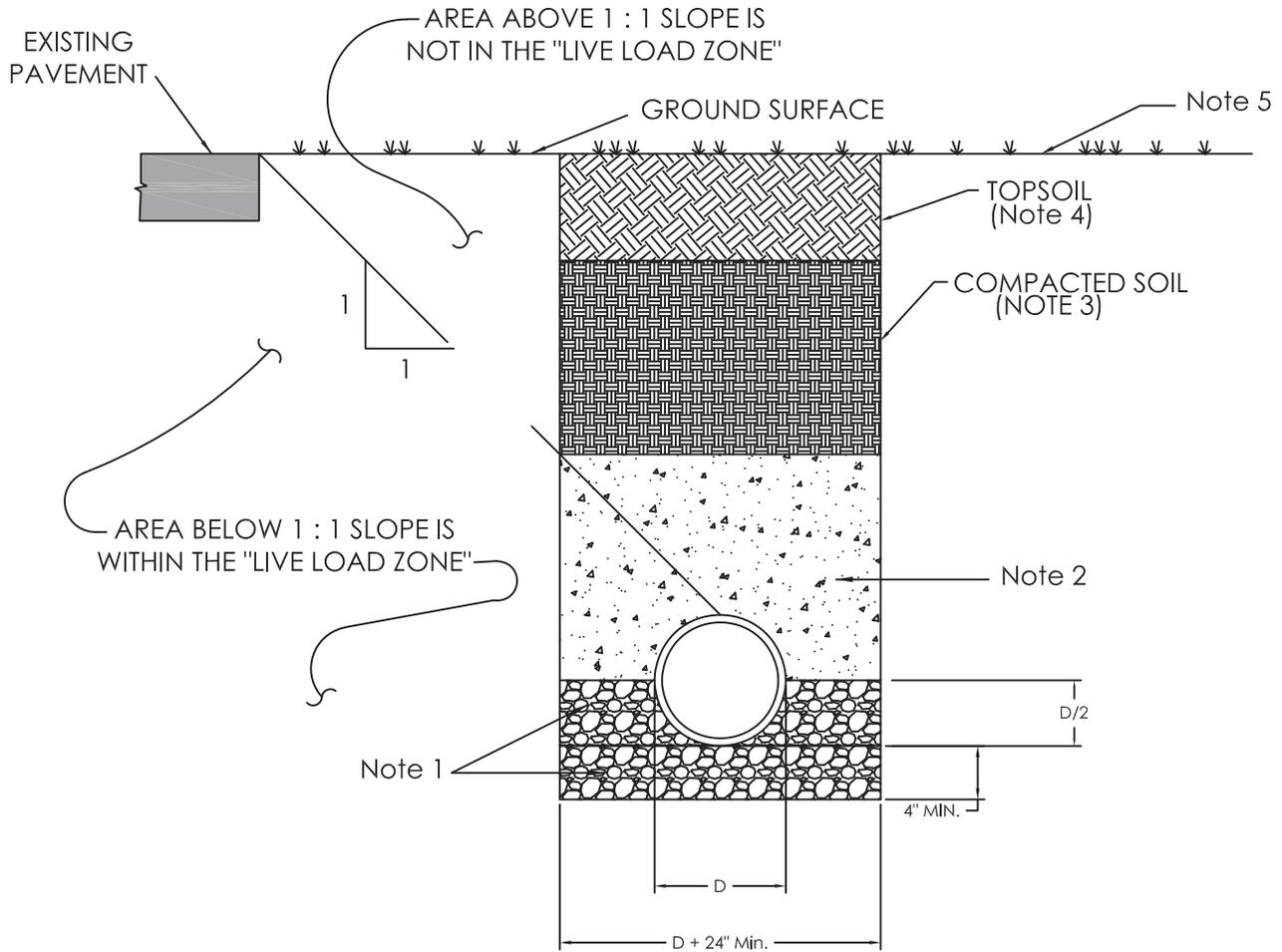


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**UTILITY TRENCH REPAIR IN PAVEMENT
 USING FLOWABLE FILL**

DATE: JULY 1, 2012(Rev.2018)
 SCALE: N.T.S.

DRAWING NO: UTR-2



NOTES:

1. PIPE BEDDING MATERIAL SHALL BE CRUSHER RUN (VDOT NO. 25 OR 26). ALTERNATE MATERIAL MUST BE APPROVED BY THE CITY ENGINEER. (Pipe bedding shall be lightly and uniformly compacted and shall be carefully shaped so that the lower section of the pipe exterior is in full contact with the bedding material for at least 10 percent of the overall height of the pipe. Bedding material shall be shaped to accommodate the bell portion of the pipe when bell and spigot pipe is used. The depth of bedding material shall be at least 4 inches, or as specified on the plan or as directed by the Engineer.)
2. BACKFILL MATERIAL IN THE LIVE LOAD ZONE SHALL BE VDOT NO. 21A OR 21B AGGREGATE, PLACED IN LOOSE LIFTS NOT EXCEEDING 6" AND COMPACTED TO AT LEAST 95% MAXIMUM DRY DENSITY WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE (VTM-1) WITH THE USE OF MECHANICAL TAMPERS OR VIBRATORY ROLLERS. WATER COMP ACTION IS NOT PERMITTED.
3. OUTSIDE THE LIVE LOAD ZONE, BACKFILL MATERIAL SHALL BE FINE COMPATIBLE SOIL FREE OF SOD, BRUSH, ROOTS, AND OTHER PERISHABLE MATERIAL AND STONES HAVING A MAXIMUM DIMENSION OF MORE THAN SIX (6) INCHES. ALSO, THIS MATERIAL SHALL BE COMPACTED IN LAYERS OF NOT MORE THAN SIX INCHES TO 95% OF THE STANDARD PROCTOR DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY AASHTO T99, Method D. ALL TESTING SHALL BE PERFORMED AND CERTIFIED BY A GEOTECHNICAL ENGINEER OR A VDOT-CERTIFIED TECHNICIAN. RESULTS SHALL BE PROVIDED TO THE INSPECTOR WITHIN 24 HOURS OF TESTING COMPLETION. THE COST OF ALL TESTING IS THE RESPONSIBILITY OF THE PERMITTEE. FIELD DENSITY TESTING METHODS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PERFORMING ANY TESTS.
4. A 4" LAYER OF TOPSOIL SHALL BE PLACED IN THE EXCAVATION AND CONTOURED TO RESTORE THE GROUND SURFACE TO AS CLOSE TO A PRE-CONSTRUCTION CONDITION AS POSSIBLE.
5. SEED AND MULCH ALL DISTURBED AREAS.



CITY OF
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BRISTOL, VA 24201
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**UTILITY TRENCH REPAIR IN NONPAVED
AREAS USING VDOT NO. 21A AGGREGATE**

DATE: JULY 1, 2012 (Rev.2018)
SCALE: N.T.S.

DRAWING NO: UTR-3

ATTACHMENT - 9

SOIL SURVEY AND GEOLOGY REPORT

TO: Joseph Daft, P.E., Bristol City Engineer
ATTN: Kenneth Plummer
FROM: S.M. Mullins
SUBJECT: Soil Survey and Geology Report
ROUTE: 11
PROJECT: 0011-102-716, C501 PPMS# 105309/103394
LOCATION: From: 500'W of Interstate 81 NB Exit Ramp
To: 450' E of intersection Island Road
COUNTY: Washington, City of Bristol

Bristol, VA
August 5, 2019

We have completed the soil survey on the above captioned project. The purpose of this project is to widen Rte. 11 and portions of Island Road, South Bound I-81 Exit Ramp, and the North Bound I-81 Exit Ramp. According to the *Report of Investigations 25, Geology of the Bristol and Wallace Quadrangles, Virginia, Department of Mines and Minerals*, the project will be cutting the residual soils and some bedrock of the Cambrian Conococheague Formation to the east and the Cambrian Honaker to the west. These two formations are separated by the trace of the Bristol Fault.

Topsoil and Rootmat:

The topsoil and rootmat here appears to be 0.5'± to 1'± as shown on the borings throughout the project.

Soil Types:

Sandy clays with sand pockets and limestone fragments, sandy clays, and clayey sands.

CBR Values:

One CBR was collected with the result of 7.7. Results attached.
Another CBR has been collected and results will be forwarded as available.

Nearest Commercial Quarry:

Vulcan Materials at Bristol Tennessee is 8.3 mi from the site.

Materials Unit Weights:

Asphalt Concrete

Surface Asphalt – approximately 110 lb/yd²/in (SM-12.5D) (SM-12.5E)

Intermediate Asphalt – approximately 115lb/yd²/in (IM-19.0A)

Base Asphalt – approximately 115 lb/ yd²/in (BM-25.0A)

Crushed Aggregate

Aggr. Base Matl. #25 or #26 - approximately 150 lb/ft³

Aggr. Matl. No 1 – approximately 140 lb/ft³

Dry Riprap Class I – approximately 130 lb/ft³

Pavement Design:

Provided by William Lester, P.E. of the Bristol District, Materials Division
Rte. 11 Mainline

SM 12.5D 165 PSY Surface

IM 19.0A 230 PSY Intermediate

BM-25.0A 8" Base

Type 1 No. 21-B 6" Subbase

I-81 Exit Ramps

SM 12.5E 220 PSY Surface
IM 19.0A 230 PSY Intermediate
BM-25.0A 8" Base
Type 1 No. 21-B 6" Subbase

All other streets and commercial entrances

SM 12.5D 220 PSY Surface
BM-25.0A 3" Base
Type 1 No. 21-B 6" Subbase

Material in cut sections:

All cut sections are composed of various shades of Sandy CLAY. The borings indicate that 3' – 8'± of rock may be encountered in the bottom part of the cut on the NB Exit Ramp RT Sta. 13+00± to 16+25±. Borings and soundings also indicate that 3' – 8'± of rock may be encountered in the lower area of the cut section on Island Road RT Sta. 42+40± to 44+00±. It must be noted that the drainage structures B-2.82 and B-2.83 may be impacted with the presence of rock in the excavation area. See attached sounding diagram for Island Road area.

Material Underlying Fill Sections:

Once the topsoil and rootmat have been removed, the material found in the foundation area of the fills areas of mod. soft to firm, moist, Sandy CLAY.

Slope Recommendations:

Cut Slopes:

Cuts slopes as designed are acceptable for the material encountered in the borings. Where rock has been encountered the slope could be steepened up to 0.5:1 if needed to match the proposed cut section RT Sta. 41+25± to 42+25±. RU-1 should be considered under the roadway in the areas of the NB Exit Ramp and Island Road mentioned above.

Fill Slopes:

Fills need to be constructed as per VDOT 2016 Road and Bridge Specifications section 303.04(h). After removal of topsoil, soft material considered unsuitable should be removed in the areas of the fills crossing ditches for 2'± and replaced with compacted Aggr. Matl. No. 1 before placing the remaining fill material. The areas affected by this appear to be Island Road LT Sta. 43+25± to 44+25±, NB Exit Ramp RT Sta. 15+75± to 16+75±, NB Exit Ramp RT Sta. 10+75± to 11+25±, and Lee Highway, Rte. 11 LT Sta. 104+25 to 106+75.

Subsidence Areas:

There are two areas of subsidence that need to be addressed as follows:

No. 1.

There is an area 50'± long and 17'± wide from Sta. 31+80± to Sta. 32+40± that has been settling for a number of months. A resistivity and GPR study was performed by WRA in February 2019 which indicated soft zones above the bedrock in this area. As shown on plan sheet 5.5, four holes, BH-SB-02 to BH-SB-05 were drilled to refusal to establish the top of the limestone bedrock in the area. As seen on Photo 1, there are two main areas of visible subsidence one surrounding BH-SB-02 4'± in diameter and one around BH-SB-03 13'± X 15'±. The larger area of settlement appears to have influenced settlement in the roadway surrounding BH-SB-04. Drill logs indicate that the softest area is found

around hole 02 and 03 with the material having better physical properties around hole 04. This would indicate that the subsidence in the road came about with material migrating to the soft area. There is also a VDOT electrical line in this area that will have to be relocated. See Photo 1 attached.

Our recommendation is to excavate the area 15'± in depth sloping the sides on 1.5:1 in the areas that have firmer material. Compact the bottom and place geotextile material over the whole area and up the sides for 8'±. Place 8' of compacted Class I Dry Riprap capped by 5' of compacted Aggr. Matl. No. 1 to an elevation 2'± below subgrade elevation. Cover the Aggr. Matl. No. 1 with geotextile material conforming to 245.03 part b of the 2016 Road and Bridge Specification and finish the repair with 2'± of compacted Aggr. Base Matl. Open Graded #25 or #26. Finish construction by placing the pavement structure and the subbase material as shown in the plans.

No.2.

This area involves a curb inlet and the corresponding base and throat. Borings indicate soft, moist, sandy clay to a point 15'± below the surface elevation in the immediate area of the failed curb inlet. The material was soft enough at the time we performed the borings that the area under the inlet and curb and gutter subsided further when the augers were removed upon completion of BH-11-07. Repairs were done at this time by filling the area with flowable fill and replacing the gutter section. This appears to have corrected the problem at this time.

If the base and throat of the drainage structure have not moved, then our recommendation is to excavate an area 12'± in diameter around the inlet area to a depth of 5'± below the subgrade elevation. Place geotextile material conforming to 245.03 part b of the 2016 Road and Bridge Specification across the bottom and 2' up the sides. Place 4'± of compacted Aggr. Matl. No. 1 topped by 1'± of Aggr. Base Matl. No 21A or 21B or Type 1 Aggr. Matl. No. 25 or 26 underlain by the same type of geotextile material to form a gradable subbase for placement of the pavement structure and curb and gutter sections. If the base and throat have moved, then the excavation will have to be modified during construction.

Unusual Subsurface Conditions:

According to available geologic information, there is the trace of the Bristol Fault running through the project. It appears that this should not pose any problems during construction.

Storm Water Management Basins:

One storm water management facility is planned for this project left of Sta. 97+50± to Sta. 100+25±. This is planned as a bio-retention basin with a bottom excavation elevation of 1786'±. Two borings were drilled in the basin area to an elevation of 1776.5' and 1771.5'. These borings indicate that the material to be excavated and will remain to form the basin is a sandy Clay with pockets of sand and scattered limestone fragments classified as A-7-6(21) which meets the VDOT criteria for acceptable material for basin construction. The borings indicated the material averages 47.9% moisture from an elevation of 1800± to 1787±. A piezometer was installed and reading taken over a 4 day period that indicated no groundwater present in the excavation area. NOTE: Since the material in the 2:1 backslope area has a high moisture content, care should be taken to maximize the vegetation of the area and minimize the time before seeding.

Subsurface Information

This soil survey investigation was based on design plans dated 08/01/18. The subsurface information in the soil survey report was obtained with reasonable care and recorded in good faith solely for use by the Department in establishing design controls for the project. The Department has no reason to suspect that such information is not reasonably accurate as an approximate indication of the subsurface conditions at the sites where the borings were taken. The Department

does not in any way warrant or guarantee that such data can be projected as indicative beyond the limits of the borings; and any such projections by bidders are purely interpretive and altogether speculative. Further, the Department does not in any way guarantee, either expressly or by implication, the sufficiency of the information for bid purposes.

If there are any other questions or you need any other information on this matter, do not hesitate to contact us. See attached photos.

Sincerely;

S.M. Mullins, P.E.
District Materials Eng.
Bristol District

cc: Tabitha Crowder, P.E.



**VIRGINIA DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
REPORT ON SAMPLE OF SOIL**



Report No.: 51-976 Bristol, VA Date: 7/2/2019

Project: 0011-102-716 Route No.: 11
 County: Washington, Bristol City Sample No.: 1
 Subm. By: C.Hamilton PPMS

Date Sampled: 6/11/2019 Date Received: 6/11/2019
 Location: Rt.11 9+25 100 ft LT
 Field Description: Sandy CLAY Depth: 2-15 ft.

ASTM Description: **Fat CLAY, with sand (CH)**

Particle Size Analysis, VTM-25

<i>Sieve</i>	<i>% Passing</i>
-1 1/2" + 1"	100.0
-1" + 3/4"	100.0
-3/4" + 3/8"	99.8
-3/8" + #4	98.3
-#4 + #10	95.8
-#10 + #20	92.3
-#20 + #40	89.1
-#40 + #60	86.3
-#60 + #80	84.0
-#80 #100	82.6
-#100 + #200	81.8
-#200	78.3

Optimum Moisture, AASHTO T 99

Total Soil	24.3%
-4 Portion	24.3%
Natural Moisture	38.4%

Max Dry Density, AASHTO T 99

Total Soil	97.2 lbs/ft³
-4 Portion	97.2 lbs/ft ³

Atterberg Limits, AASHTO T 89, T 90

Liquid Limit	54.3
Plastic Limit	28.9
Plasticity Index	25.4

Soil Classification :

AASHTO M 145	A-7-6(21)
ASTM D 2487	CH

CBR Data, AASHTO T 193

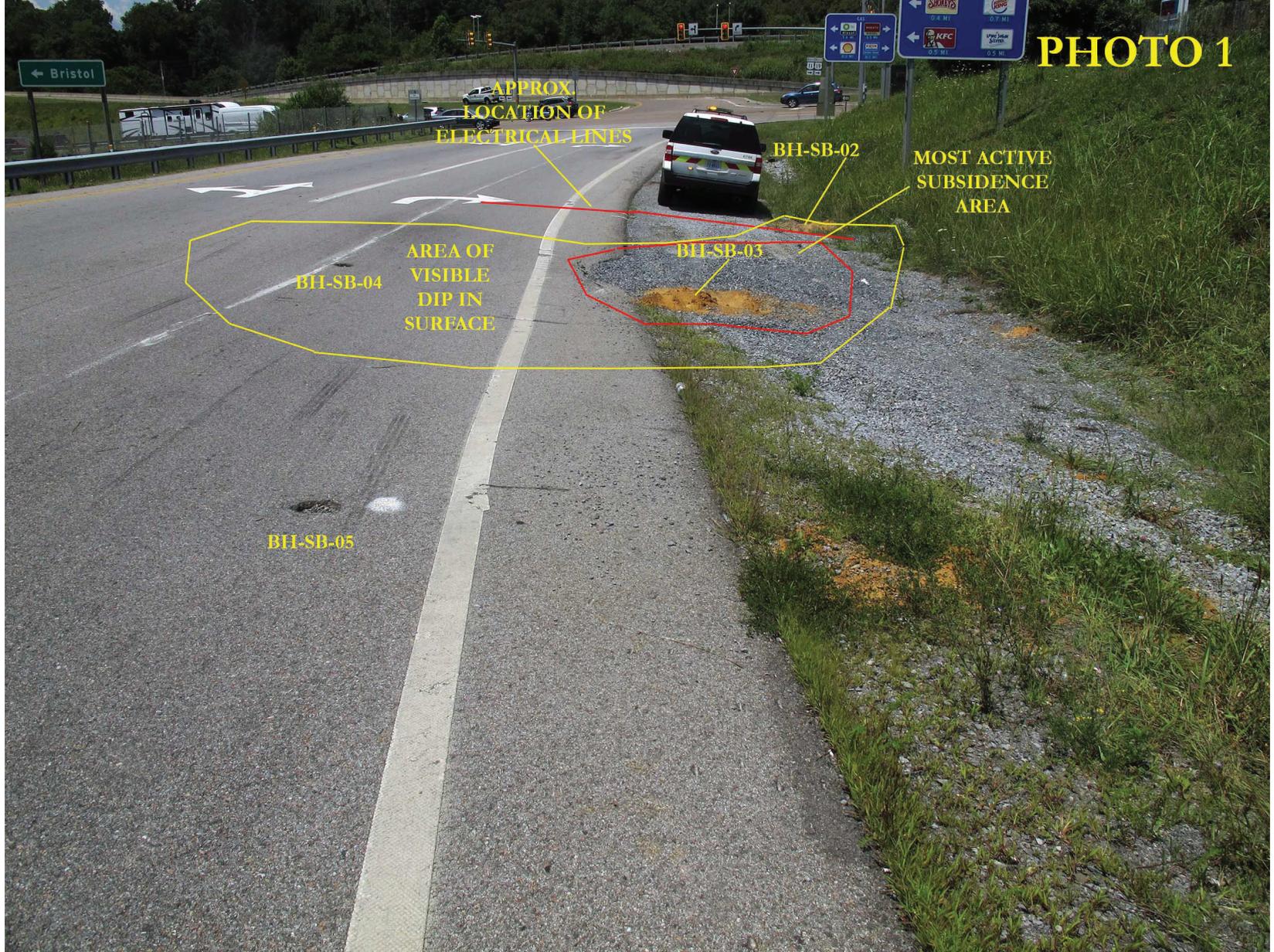
	Unsoaked	Before Soaking	After Soaking
CBR Value			7.7
% Moisture		23.3%	28.5%
% Density		101.40%	98.70%
Unit Weight (lbs/ft ³)		98.6	96
% Swell			1.3
% Moisture Top Inch			23.3%

Remarks:

Reported by: C.Hamilton

Steven Mullins, P.E.
District Materials Engineer

PHOTO 1



APPROX.
LOCATION OF
ELECTRICAL LINES

BH-SB-02

MOST ACTIVE
SUBSIDENCE
AREA

BH-SB-04

AREA OF
VISIBLE
DIP IN
SURFACE

BH-SB-03

BH-SB-05

Island Rd.

Sounding area noted. 42+40 30' RT out to 42+40 50' RT and parallel to CL to 43+ 40' RT.

All holes in this area hit rock within 1' of surface elevation.





**VIRGINIA DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
REPORT ON SAMPLE OF SOIL**



Report No.: 51-978 Bristol, VA Date: 8/5/2019

Project: 0011-102-716 Route No.: 11
 County: Bristol City Sample No.: 2
 Subm. By: C.Hamilton PPMS

Date Sampled: 7/31/2019 Date Received: 7/31/2019
 Location: Island Rd. 44+00 60 ft RT
 Field Description: Light red-brown fine Clayey Sand Depth: 2-12

ASTM Description: **SILT, with sand (ML)**

Particle Size Analysis, VTM-25

<i>Sieve</i>	<i>% Passing</i>
-1 1/2" + 1"	100.0
-1" + 3/4"	100.0
-3/4" + 3/8"	100.0
-3/8" + #4	99.3
-#4 + #10	97.4
-#10 + #20	96.3
-#20 + #40	95.7
-#40 + #60	95.0
-#60 + #80	94.1
-#80 #100	93.4
-#100 + #200	92.9
-#200	72.6

Optimum Moisture, AASHTO T 99

Total Soil	22.0%
-4 Portion	22.0%
Natural Moisture	38.3%

Max Dry Density, AASHTO T 99

Total Soil	99.5 lbs/ft³
-4 Portion	99.5 lbs/ft ³

Atterberg Limits, AASHTO T 89, T 90

Liquid Limit	40.1
Plastic Limit	28.5
Plasticity Index	11.6

Soil Classification :

AASHTO M 145	A-7-6(9)
ASTM D 2487	ML

CBR Data, AASHTO T 193

	Unsoaked	Before Soaking	After Soaking
CBR Value			6.8
% Moisture		22.4%	22.9%
% Density		99.60%	99.40%
Unit Weight (lbs/ft ³)		99.1	98.9
% Swell			0.6
% Moisture Top Inch			24.1%

Remarks:

Reported by: C.Hamilton

Steven Mullins, P.E.
District Materials Engineer



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: RT. 11: SWMB

BH-11-02

PAGE 1 OF 1

STATION: 99+25
 LATITUDE:
 SURFACE ELEVATION: 1,803.0 ft

OFFSET: 100 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA										LAB DATA		
DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND	FIELD DESCRIPTION OF STRATA	LL	PI	MOISTURE CONTENT (%)
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION					
1	1802	4			1				0.0 / 1,803.0 Topsoil			10.8
2	1801	6	7	100	2.5				1.0 / 1,802.0 Residual, light brown, Clayey SAND, firm, moist. SC			17.3
3	1800	3	4	100	4							53.5
4	1799	2	2	100	5.5				5.0 / 1,798.0 Residual, light brown, Sandy CLAY, with pockets of light brown sand and weathered limestone fragments, moist, firm to stiff. CL			50.6
5	1798	2	2	100	7							46.1
6	1797	2	2	100	8.5							40.5
7	1796	4	6	100	10							41.2
8	1795	6	6	100	11.5							40.6
9	1794	4	6	100	13							43.8
10	1793	5	4	100	14.5							43.5
11	1792	5	5	100	16							
12	1791	4	4	33	20				20.0 / 1,783.0 Same, very soft to soft, wet. CL			49.3
13	1790	3	2	33	21.5							
14	1789	2	2	33	25							
15	1788	2	2	100	26.5							
16	1787				25							
17	1786				26.5							
18	1785				30							
19	1784				31.5							
20	1783	woh 1	1	67								
21	1782											
22	1781											
23	1780											
24	1779	woh 1	woh	67								
25	1778											
26	1777	woh 1	woh	67								44.2
27	1776											
28	1775											
29	1774											
30	1773	woh	woh	33								
31	1772	woh	woh	33								47.8
									Bottom of Hole @ 1,771.5 ft Elevation			

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.0008/15/19: VDOT

REMARKS: Rig Type: CME- 55X.
 Book 23, Page 51
 Bag Sample 1 taken from auger cuttings 2'-15' Moisture: 38.4%

PAGE 1 OF 1

BH-11-02



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: RT. 11: CONCRETE DITCH SUBSID.

BH-11-03

PAGE 1 OF 1

STATION: 99+97
 LATITUDE:
 SURFACE ELEVATION: 1,793.3 ft

OFFSET: 127 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

LAB DATA

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND	Date(s) Drilled: 06/11/19 Drilling Method(s): Auger SPT Method: Automatic Hammer Other Test(s): Driller: JWA Logger: CSH	GROUND WATER NOT ENCOUNTERED DURING DRILLING	LIQUID LIMIT	PLASTICITY INDEX	MOISTURE CONTENT (%)
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION						
1	1792												
2	1791												
3	1790												
4	1789												
5	1788												
6	1787												
7	1786												
8	1785												
9	1784												
10	1783	woh			10				0.0 / 1,793.3 Crusher run				
11	1782	woh	1	33	11.5				0.5 / 1,792.8 Residual, red-brown, Sandy CLAY, with pockets of light brown sand, and weathered limestone fragments. soft, moist. CL				38.9
12	1781												
13	1780												
14	1779												
15	1778												
16	1777				16.5								
Auger refusal, Bottom of Hole @ 1,776.8 ft Elevation													

REMARKS: Rig Type: CME-550X.
 Book 23, Page 53

PAGE 1 OF 1

BH-11-03

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: RT. 11: CONCRETE DITCH SUBSID.

BH-11-04

PAGE 1 OF 1

STATION: 100+00
 LATITUDE:
 SURFACE ELEVATION: 1,792.0 ft

OFFSET: 114 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA										LAB DATA								
DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK					LIQUID LIMIT	PLASTICITY INDEX	MOISTURE CONTENT (%)						
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °	STRATA				JOINTS	STRATA LEGEND				
1	1791																	
2	1790																	
3	1789																	
4	1788																	
5	1787																	
6	1786																	
7	1785																	
8	1784																	
9	1783																	
10	1782																	
11	1781																	
12	1780																	
13	1779																	
13.4																		
										GROUND WATER								
										NOT ENCOUNTERED DURING DRILLING								
FIELD DESCRIPTION OF STRATA										LL	PI							
0.0 / 1,792.0																		
Residual, red-brown, Sandy CLAY, with pockets of light brown sand, and weathered limestone fragments. soft, moist. CL																		
Auger refusal, Bottom of Hole @ 1,778.6 ft Elevation																		

REMARKS: Rig Type: CME-550X.
 Book 23, Page 53

PAGE 1 OF 1

BH-11-04

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: RT. 11: CONCRETE DITCH SUBSID.

BH-11-05

PAGE 1 OF 1

STATION: 100+10
 LATITUDE:
 SURFACE ELEVATION: 1,793.3 ft

OFFSET: 119 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/11/19
 Drilling Method(s): Auger
 SPT Method:
 Other Test(s):
 Driller: JWA
 Logger: CSH

LAB DATA

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK				STRATA LEGEND		
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °		STRATA	JOINTS
1	1792										
2	1791										
3	1790										
4	1789										
5	1788										
6	1787										
7	1786										
8	1785										
9	1784										
10	1783										
11	1782										
12	1781										
13	1780										
14	1779										
15	1778										
16	1777										
17	1776										
18	1775										
19	1774										
20	1773										
21	1772										
22	1771										
23	1770										
24	1769										
25	1768										
26	1767	50	0		26.5 26.9						

0.0 / 1,793.3
 Topsoil
 0.5 / 1,792.8
 Residual, red-brown, Sandy CLAY, with pockets of light brown sand, and weathered limestone fragments. soft, moist. CL

19.0 / 1,774.3
 Same, sliding down rock pinnacle

Bottom of Hole @ 1,766.8 ft Elevation
 Sampler refusal on rock, Bottom of Hole @ 1,766.4 ft Elevation

REMARKS: Rig Type: CME-550X.
 Book 23, Page 53

PAGE 1 OF 1

BH-11-05

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: RT. 11: DI SUBSIDENCE

BH-11-06

PAGE 1 OF 1

STATION: 100+35
 LATITUDE:
 SURFACE ELEVATION: 1,794.0 ft

OFFSET: 40 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/12/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °	
1	1793							
2	1792							
3	1791							
4	1790							
5	1789							
6	1788							
7	1787							
8	1786							
9	1785	2			9			
10	1784	3	4		10.5			
11	1783							
12	1782							
13	1781							
14	1780							
15	1779							
16	1778							
17	1777							
18	1776							
19	1775	1	2	3	19			
20	1774				20.5			
21	1773							
22	1772							
23	1771							
24	1770							
25	1769							
26	1768							
27	1767							
28	1766							
29	1765	w	o	h	29			
30	1764				30.5			
31	1763							
32	1762							
33	1761							
34	1760							
35	1759							
36	1758							
37	1757							
38	1756							
39	1755	w	o	h	39			
40	1754				40.5			
41	1753							
42	1752							
43	1751							
44	1750							
45	1749							
46	1748							
47	1747							
48	1746							
49	1745	woh	1		49			
50	1744				50.5			

0.0 / 1,794.0		
Asphalt		
0.7 / 1,793.3		
Base aggregate		
2.0 / 1,792.0		
Coarse aggregate		
4.5 / 1,789.5		
Fill, medium brown, Sandy CLAY, with occasional gravel, soft, moist. CL		24.8
12.7 / 1,781.3		
Coarse aggregate		
14.5 / 1,779.5		
Fill, medium brown, Sandy CLAY, with occasional gravel, soft, moist. CL		
19.5 / 1,774.5		39.2
Residual, red-brown, Sandy CLAY, with pockets of light brown clayey sand, and weathered limestone fragments, soft, moist. CL		
		37.6
		39.7
		41.1
Bottom of Hole @ 1,744.0 ft Elevation		

REMARKS: Rig Type: CME-550X.
 Book 23, Page 54

PAGE 1 OF 1

BH-11-06

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: RT. 11: DI SUBSIDENCE

BH-11-07
 PAGE 1 OF 1

STATION: 100+40
 LATITUDE:
 SURFACE ELEVATION: 1,794.0 ft
 OFFSET: 44 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA										LAB DATA			
DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK				STRATA LEGEND	GROUND WATER			
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °		STRATA	JOINTS	LIQUID LIMIT	PLASTICITY INDEX
FIELD DESCRIPTION OF STRATA										LL	PI		
1	1793									0.0 / 1,794.0			
2	1792									Topsoil			
3	1791	1			3					0.5 / 1,793.5			
4	1790	1	1	33	4.5					Fill, medium brown, Sandy CLAY, with occasional gravel, soft, wet. CL			27.9
5	1789												
6	1788												
7	1787												
8	1786												
9	1785												
10	1784	woh 2	1	33	9.2								28.5
11	1783				10.7								
12	1782												
13	1781												
14	1780	2			14.2								
15	1779	3	3	100	15.7								31.0
16	1778												
17	1777												
18	1776									17.0 / 1,777.0			
19	1775	woh 1			19.2					Fill, well graded GRAVEL, medium dense, wet. GW			
20	1774		2	100	20.7					17.5 / 1,776.5			34.4
21	1773									Fill, medium brown, Sandy CLAY, with occasional gravel, soft, wet. CL			
22	1772												
23	1771									20.0 / 1,774.0			
24	1770	1	1	100	24.2					Residual, red-brown, Sandy CLAY, with pockets of light brown clayey sand, and weathered limestone fragments, soft, moist. CL			32.1
25	1769				25.7								
26	1768												
27	1767									25.0 / 1,769.0			
28	1766									Same, very soft, wet.			
29	1765	1			29.2								
30	1764	2	1	100	30.7								41.0
31	1763												
32	1762												
33	1761												
34	1760	woh 1			34.2								
35	1759		50	42	35.4								29.4
36	1758									35.2 / 1,758.8			
										Highly weathered LIMESTONE			
										Sampler refusal on limestone, Bottom of Hole @ 1,758.6 ft Elevation			

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/15/19: VDOT

REMARKS: Rig Type: CME-550X.
 Book 23, Page 54

PAGE 1 OF 1
BH-11-07



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: RT. 11: DI SUBSIDENCE

BH-11-08

PAGE 1 OF 1

STATION: 100+42
 LATITUDE:
 SURFACE ELEVATION: 1,794.5 ft

OFFSET: 48 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA										LAB DATA			
DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK					GROUND WATER	LIQUID LIMIT	PLASTICITY INDEX	MOISTURE CONTENT (%)
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °	STRATA				
FIELD DESCRIPTION OF STRATA										LL	PI		
1	1794												
2	1793												
3	1792												
4	1791												
5	1790												
6	1789												
7	1788												
8	1787												
9	1786												
10	1785												
11	1784												
12	1783												
13	1782												
14	1781												
15	1780												
16	1779												
17	1778												
18	1777												
19	1776												
20	1775												
21	1774												
22	1773												
23	1772												
24	1771												
25	1770												
26	1769												
27	1768												
28	1767												
29	1766												
30	1765												
31	1764												
32	1763												
33	1762												
34	1761				33.5								

0.0 / 1,794.5
 Topsoil

0.5 / 1,794.0
 Fill, medium brown, Sandy CLAY, with occasional gravel, soft, moist. CL

23.0 / 1,771.5
 Residual, red-brown, Sandy CLAY, with pockets of light brown clayey sand, and weathered limestone fragments, soft, moist. CL

Auger refusal on rock, Bottom of Hole @ 1,761.0 ft Elevation

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT

REMARKS: Rig Type: CME-550X.
 Book 23, Page 54

PAGE 1 OF 1

BH-11-08



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: RT. 11: CUT 9'

BH-11-09

PAGE 1 OF 1

STATION: 105+50
 LATITUDE:
 SURFACE ELEVATION: 1,829.0 ft

OFFSET: 85 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/25/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	
1	1828							
2	1827							
3	1826							
4	1825							
5	1824							
6	1823							
7	1822							
8	1821							
9	1820	2	3	5	100	8.5		
10	1819					10		
11	1818							
12	1817							
13	1816					13.5		
14	1815	50		0		13.7		

0.0 / 1,829.0
 Topsoil
 1.0 / 1,828.0
 Residual, red-brown, Sandy CLAY, firm, moist. CL

31.0

Sampler refusal in limestone, Bottom of Hole @ 1,815.3 ft Elevation

REMARKS: Rig Type: CME-45B.
 Book 23, Page 61

PAGE 1 OF 1

BH-11-09

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: RT. 11: CUT 9'

BH-11-10

PAGE 1 OF 1

STATION: 107+25
 LATITUDE:
 SURFACE ELEVATION: 1,833.0 ft

OFFSET: 85 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/25/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °	
1	1832							
2	1831							
3	1830							
4	1829							
5	1828							
6	1827							
7	1826							
8	1825							
9	1824	2	100	8.5				
10	1823	2	100	10				
11	1822							
12	1821							
13	1820							
14	1819	2	100	13.5				
15	1818	3	100	15				

0.0 / 1,833.0
 Topsoil
 0.5 / 1,832.5
 Residual, red-brown, Sandy CLAY, firm, moist. CL

Bottom of Hole @ 1,818.0 ft Elevation

44.2
 24.5

REMARKS: Rig Type: CME-45B.
 Book 23, Page 61

PAGE 1 OF 1

BH-11-10

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: ISLAND RD: CUT 5'

BH-IR-01

PAGE 1 OF 1

STATION: 42+00
 LATITUDE:
 SURFACE ELEVATION: 1,832.5 ft

OFFSET: 60 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/10/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	
1	1832							
2	1831							
3	1830							
4	1829							
5	1828	4			4.5			
6	1827	5	100		6			
7	1826							
8	1825							
9	1824							
10	1823	3			9.5			
11	1822	3	100		11			

0.0 / 1,832.5
 Topsoil

1.0 / 1,831.5
 Residual, red-brown, Sandy CLAY, stiff, moist. CL

7.0 / 1,825.5
 Residual, light brown, Sandy CLAY, moist to wet, firm. CL

Bottom of Hole @ 1,821.5 ft Elevation

REMARKS: Rig Type: CME-550X.
 Book 23, Page 49

PAGE 1 OF 1

BH-IR-01

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: ISLAND RD: CUT 18'

BH-IR-02

PAGE 1 OF 1

STATION: 44+00
 LATITUDE:
 SURFACE ELEVATION: 1,846.5 ft

OFFSET: 60 ft RT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/10/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	
1	1846							
2	1845							
3	1844							
4	1843							
5	1842							
6	1841							
7	1840							
8	1839							
9	1838							
10	1837							
11	1836							
12	1835							
13	1834							
14	1833							
15	1832				14.8			

0.0 / 1,846.5
 Topsoil

1.0 / 1,845.5
 Residual, light red-brown, Clayey SAND, firm, moist. SC

12.0 / 1,834.5
 Residual, light brown, Clayey SAND, soft, wet. SC

Auger refusal, Bottom of Hole @ 1,831.7 ft Elevation

REMARKS: Rig Type: CME-550X.
 Book 23, Page 49

PAGE 1 OF 1

BH-IR-02

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.0008/15/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: ISLAND RD: CUT 15'

BH-IR-03

PAGE 1 OF 1

STATION: 44+50
 LATITUDE:
 SURFACE ELEVATION: 1,841.0 ft

OFFSET: 60 ft RT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA										LAB DATA			
DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK				STRATA LEGEND	GROUND WATER			
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °		STRATA	JOINTS	NOT ENCOUNTERED DURING DRILLING	LIQUID LIMIT
FIELD DESCRIPTION OF STRATA										LL	PI		
1	1840									0.0 / 1,841.0 Topsoil			
2	1839									1.0 / 1,840.0 Residual, light red-brown, clayey SAND, loose, moist. SC			
3	1838												
4	1837												
5	1836												
6	1835												
7	1834												
8	1833												
9	1832												
10	1831												
11	1830												
12	1829												
13	1828												
14	1827												
15	1826	woh			15								
16	1825	woh	1	100	16.5								55.0
17	1824												
18	1823												
19	1822									18.0 / 1,823.0 Residual, medium brown, clayey SAND, medium dense, wet. SC			
20	1821	5			20								
21	1820	5	8	100	21.5								50.5
										Bottom of Hole @ 1,819.5 ft Elevation			

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/15/19: VDOT

REMARKS: Rig Type: CME-45B.
 Book 23, Page 61

PAGE 1 OF 1

BH-IR-03



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: NB EXIT: CUT 24'

BH-NB-01

PAGE 1 OF 1

STATION: 13+00
 LATITUDE:
 SURFACE ELEVATION: 1,820.0 ft

OFFSET: 60 ft RT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA										LAB DATA			
DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK					LIQUID LIMIT	PLASTICITY INDEX	MOISTURE CONTENT (%)	
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °	STRATA				JOINTS
										Date(s) Drilled: 06/26/19 Drilling Method(s): Auger SPT Method: Other Test(s): Driller: JWA Logger: CSH			
										GROUND WATER NOT ENCOUNTERED DURING DRILLING			
										FIELD DESCRIPTION OF STRATA			
1	1819												
2	1818												
3	1817												
4	1816												
5	1815												
6	1814												
7	1813												
8	1812												
9	1811												
10	1810												
11	1809												
12	1808												
13	1807												
14	1806												
15	1805												
16	1804												
17	1803												
18	1802												
19	1801												
20	1800												
21	1799												
22	1798												
										Auger refusal, Bottom of Hole @ 1,797.5 ft Elevation			

REMARKS: Rig Type: CME-550X.
 Book 23, Page 68

PAGE 1 OF 1

BH-NB-01

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: NB EXIT: CUT 14'

BH-NB-02

PAGE 1 OF 1

STATION: 15+10
 LATITUDE:
 SURFACE ELEVATION: 1,817.5 ft

OFFSET: 45 ft RT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/25/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK				STRATA LEGEND		
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °		STRATA	JOINTS
1	1817										
2	1816										
3	1815										
4	1814										
5	1813										
6	1812										
	1811				6.5						

0.0 / 1,817.5
 Topsoil

0.5 / 1,817.0
 Residual, medium brown, Sandy CLAY, with weathered rock fragments, firm, moist. CL

Auger refusal, Bottom of Hole @ 1,811.0 ft Elevation

REMARKS: Rig Type: CME-45B.
 Book 23, Page 62

PAGE 1 OF 1

BH-NB-02

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: NB EXIT: FILL 2.5'

BH-NB-03

PAGE 1 OF 1

STATION: 17+50
 LATITUDE:
 SURFACE ELEVATION: 1,817.5 ft

OFFSET: 3 ft RT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/25/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK				STRATA LEGEND	
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °		STRATA
1	1817	2			0.5					
2	1816	4	100		2					
3	1815	6	100		3.5					
4	1814	4	100		5					
5	1813	5	100		6.5					
6	1812	4	100							
	1811	6								

0.0 / 1,817.5
 Topsoil

0.5 / 1,817.0
 Fill, red brown, Sandy CLAY with gravel, firm, moist. CL

1.5 / 1,816.0
 Residual, red brown, Sandy CLAY with gravel, firm, moist. CL

24.4

36.6

38.0

Bottom of Hole @ 1,811.0 ft Elevation

REMARKS: Rig Type: CME-45B.
 Book 23, Page 62

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BH-NB-03

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: SB EXIT: CUT 8'

BH-SB-01
 PAGE 1 OF 1

STATION: 31+00
 LATITUDE:
 SURFACE ELEVATION: 1,811.0 ft

OFFSET: 50 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA										LAB DATA		
DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND	FIELD DESCRIPTION OF STRATA	LL	PI	MOISTURE CONTENT (%)
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION					
1	1810								0.0 / 1,811.0 Topsoil			
2	1809								1.0 / 1,810.0 Fill, red-brown, Sandy CLAY, firm moist. CI			
3	1808											
4	1807											
5	1806											
6	1805											
7	1804											
8	1803	2			7.5							
9	1802	3	3	100	9							43.5
10	1801											
11	1800											
12	1799											
13	1798								12.0 / 1,799.0			
14	1797	1			14				Residual, light-brown, Clayey SAND with weathered rock cobbles, soft to firm, moist. SC			
15	1796	2	1	100	15.5							47.8
16	1795											
17	1794											
18	1793				18				Auger refusal, Bottom of Hole @ 1,793.0 ft Elevation			

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

FIELD DESCRIPTION OF STRATA

REMARKS: Rig Type: CME-550X.
 Book 23, Page 50

PAGE 1 OF 1
BH-SB-01

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: SB EXIT: SUBSIDENCE

BH-SB-02

PAGE 1 OF 1

STATION: 31+83
 LATITUDE:
 SURFACE ELEVATION: 1,800.6 ft

OFFSET: 16 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 05/15/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER

▽ FIRST ENCOUNTERED AT 25.0 ft DEPTH (Elev. 1,775.6)
 NO LONG TERM MEASUREMENTS TAKEN

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	
1	1800							
2	1799							
3	1798							
4	1797							
5	1796							
6	1795							
7	1794							
8	1793							
9	1792	1	100		8			
10	1791	1	100		9.5			
11	1790							
12	1789							
13	1788	1	100		13			
14	1787	1	100		14.5			
15	1786							
16	1785							
17	1784							
18	1783							
19	1782	1	100		18			
20	1781		2		19.5			
21	1780							
22	1779							
23	1778							
24	1777	woh	100		23			
25	1776	woh	100		24.5			
26	1775							
27	1774							
28	1773							
29	1772	woh	100		28			
30	1771	woh	100		29.5			
31	1770							
32	1769							
33	1768	25	50	83	33			
34	1767				33.6			

0.0 / 1,800.6
 Topsoil and Gravel
 1.0 / 1,799.6
 Aggregate #57

4.5 / 1,796.1
 Residual, red-brown, Sandy CLAY, with pockets of light brown weathered limestone fragments, very soft, moist to wet. CL

Sampler refusal in limestone, Bottom of Hole @ 1,766.1 ft Elevation

REMARKS: Rig Type: CME-45B.
 Book 23, Page 42

PAGE 1 OF 1

BH-SB-02

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: SB EXIT: SUBSIDENCE

BH-SB-03

PAGE 1 OF 1

STATION: 32+10
 LATITUDE:
 SURFACE ELEVATION: 1,801.6 ft

OFFSET: 8 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 05/15/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER

▼ FIRST ENCOUNTERED AT 35.0 ft DEPTH (Elev. 1,766.6)
 NO LONG TERM MEASUREMENTS TAKEN

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK				STRATA LEGEND	
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °		STRATA
1	1801									
2	1800									
3	1799									
4	1798									
5	1797									
6	1796									
7	1795									
8	1794									
9	1793									
10	1792									
11	1791									
12	1790									
13	1789									
14	1788	woh 1	1	33	13.5					
15	1787				15					
16	1786									
17	1785									
18	1784									
19	1783	woh			18.5					
20	1782	woh	1	67	20					
21	1781									
22	1780									
23	1779									
24	1778	woh 1	1	80	23.5					
25	1777				25					
26	1776									
27	1775									
28	1774									
29	1773	woh			28.5					
30	1772	woh	woh	100	30					
31	1771									
32	1770									
33	1769									
34	1768	woh 1	1	67	33.5					
35	1767				35					
36	1766									
37	1765									
38	1764									
39	1763	1			38.5					
40	1762	2	1	67	40					
41	1761									
42	1760				41.9					

0.0 / 1,801.6
 Fill, gray, well-graded gravel, loose, moist. GW

7.0 / 1,794.6
 Same, no auger returns, very loose. GW

10.0 / 1,791.6
 Fill, clayey gravel, loose, moist. GW-GC

13.5 / 1,788.1
 Residual, Red-brown, Sandy CLAY, very soft, wet. CL

Auger refusal on rock, Bottom of Hole @ 1,759.7 ft Elevation

REMARKS: Rig Type: CME-45B.
 Book 23, Page 40

PAGE 1 OF 1

BH-SB-03

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19 : VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: SB EXIT: SUBSIDENCE

BH-SB-04

PAGE 1 OF 1

STATION: 32+10
 LATITUDE:
 SURFACE ELEVATION: 1,804.5 ft

OFFSET: 4 ft RT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/13/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

FIELD DESCRIPTION OF STRATA

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	DIP °	
1	1804							
2	1803							
3	1802							
4	1801	3						
5	1800	4	4	67	3.7			
6	1799		4		5.2			
7	1798							
8	1797							
9	1796	1			8.7			
10	1795	2	4	100	10.2			
11	1794							
12	1793							
13	1792							
14	1791	2			13.7			
15	1790	4	4	100	15.2			
16	1789							
17	1788							
18	1787							
19	1786	2			18.7			
20	1785	2	4	100	20.2			
21	1784							
22	1783							
23	1782							
24	1781	1			23.7			
25	1780	2	2	100	25.2			
26	1779							
27	1778							
28	1777							
29	1776	5			28.7			
30	1775	7	8	100	30.2			
31	1774							
32	1773							
33	1772				32.6			

0.0 / 1,804.5
 Asphalt

0.7 / 1,803.8
 Base aggregate

1.5 / 1,803.0
 Fill, med brown, Sandy CLAY with occasional gravel, firm, moist. CL

7.5 / 1,797.0
 Residual, red-brown, Sandy CLAY, with pockets of light brown sand, and weathered limestone fragments, firm, moist. CL

28.5 / 1,776.0
 Same with cobbled sized weathered limestone fragments, stiff, wet. CL

Auger refusal in Limestone, Bottom of Hole @ 1,771.9 ft Elevation

DEPTH (ft)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	MOISTURE CONTENT (%)
1-3			
4			18.4
5-6			
7-8			
9			23.5
10-11			
12-13			
14			30.4
15-16			
17-18			
19			26.0
20-21			
22-23			
24			30.3
25-26			
27-28			
29			30.6
30-31			
32-33			

REMARKS: Rig Type: CME-500X.
 Book 23, Page 56

PAGE 1 OF 1

BH-SB-04

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: SB EXIT: SUBSIDENCE

BH-SB-05

PAGE 1 OF 1

STATION: 32+34
 LATITUDE:
 SURFACE ELEVATION: 1,803.8 ft

OFFSET: CL
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 05/15/19

LAB DATA

Drilling Method(s): Auger
 SPT Method: Automatic Hammer
 Other Test(s):
 Driller: JWA
 Logger: CSH

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	
1	1803							
2	1802							
3	1801							
4	1800							
5	1799							
6	1798							
7	1797							
8	1796							
9	1795	2	100		8.5			
10	1794	2	2		10			
11	1793							
12	1792							
13	1791							
14	1790	2	1	67	13.5			
15	1789	1	1		15			
16	1788							
17	1787							
18	1786							
19	1785	3	1	100	18.5			
20	1784	1	1		20			
21	1783							
22	1782							
23	1781							
24	1780	2	1	67	23.5			
25	1779	1	1		25			
26	1778							
27	1777							
28	1776							
29	1775	3	50	56	28.5			
					29.4			

0.0 / 1,803.8
 Asphalt

0.8 / 1,803.0
 Base aggregate

2.2 / 1,801.6
 Fill, gray, poorly graded gravel, loose, dry. GP

6.0 / 1,797.8
 Residual, red-brown, Sandy CLAY, with frequent pockets of weathered limestone fragments, soft, moist. SC

26.0 / 1,777.8
 Same, with cobble sized weathered rock, and pockets of wet material. SC

Auger Refusal, Bottom of Hole @ 1,774.4 ft Elevation

LL	PI	MOISTURE CONTENT (%)
		27.8
		42.1
		45.2
		39.4
		44.5

REMARKS: Rig Type: CME-45B.
 Book 23, Page 41

PAGE 1 OF 1

BH-SB-05

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: SB EXIT: CUT 7'

BH-SB-06

PAGE 1 OF 1

STATION: 33+00
 LATITUDE:
 SURFACE ELEVATION: 1,814.0 ft

OFFSET: 35 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA										LAB DATA			
DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND	GROUND WATER				
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION		DIP °	STRATA	JOINTS	NOT ENCOUNTERED DURING DRILLING	LIQUID LIMIT
FIELD DESCRIPTION OF STRATA										LL	PI		
1	1813									0.0 / 1,814.0			
2	1812									Topsoil			
3	1811									1.0 / 1,813.0			
4	1810									Fill, medium brown, Sandy CLAY, soft to very soft, moist. CL			
5	1809												
6	1808												
7	1807	1			6.5								
8	1806	1	2	100	8								24.7
9	1805												
10	1804												
11	1803									10.0 / 1,804.0			
12	1802									red-brown, Sandy CLAY, firm, moist. CL			
13	1801												
14	1800	2	3		13.5								
15	1799		4	100	15								35.5
Bottom of Hole @ 1,799.0 ft Elevation													

REMARKS: Rig Type: CME-550X.
 Book 23, Page 50

PAGE 1 OF 1

BH-SB-06

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: ISLAND RD: CUT 8'

S-IR-01

PAGE 1 OF 1

STATION: 43+00
 LATITUDE:
 SURFACE ELEVATION: 1,836.0 ft

OFFSET: 50 ft RT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

LAB DATA

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND	Date(s) Drilled: 06/10/19 Drilling Method(s): Sounding SPT Method: Other Test(s): Driller: CSH Logger: CSH	LIQUID LIMIT	PLASTICITY INDEX	MOISTURE CONTENT (%)
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION					
1	1835			O	1.5				GROUND WATER NOT ENCOUNTERED DURING DRILLING			
FIELD DESCRIPTION OF STRATA									LL	PI		
									0.0 / 1,836.0 Topsoil			
									Refuse on rock, Bottom of Hole @ 1,834.5 ft Elevation			

REMARKS: Rig Type: Sounding Rod.
 Book 23, Page 50

PAGE 1 OF 1

S-IR-01

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: ISLAND RD: CUT 8'

S-IR-02

PAGE 1 OF 1

STATION: 43+40
 LATITUDE:
 SURFACE ELEVATION: 1,837.0 ft

OFFSET: 50 ft RT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/10/19

LAB DATA

Drilling Method(s): Sounding
 SPT Method:
 Other Test(s):
 Driller: CSH
 Logger: CSH

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK				STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	STRATA	
1	1836			O					
2	1835				2.5				

0.0 / 1,837.0
 Topsoil

1.5 / 1,835.5
 Residual, red-brown, Sandy CLAY, soft, moist. SC

Refusal on rock, Bottom of Hole @ 1,834.5 ft Elevation

REMARKS: Rig Type: Sounding Rod.
 Book 23, Page 50

PAGE 1 OF 1

S-IR-02

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT



PROJECT #: 0011-102-728, C501
 LOCATION: City of Bristol
 STRUCTURE: ISLAND RD: FILL 2'

S-IR-03

PAGE 1 OF 1

STATION: 44+00
 LATITUDE:
 SURFACE ELEVATION: 1,829.0 ft

OFFSET: 25 ft LT
 LONGITUDE:
 COORD. DATUM:

FIELD DATA

Date(s) Drilled: 06/10/19

LAB DATA

Drilling Method(s): Sounding
 SPT Method:
 Other Test(s):
 Driller: CSH
 Logger: CSH

LIQUID LIMIT
 PLASTICITY INDEX
 MOISTURE CONTENT (%)

GROUND WATER
 NOT ENCOUNTERED DURING DRILLING

FIELD DESCRIPTION OF STRATA

LL PI

DEPTH (ft)	ELEVATION (ft)	SOIL			ROCK			STRATA LEGEND
		STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	ROCK QUALITY DESIGNATION	
1	1828							
2	1827							
3	1826				3.5			

0.0 / 1,829.0
 Topsoil

1.5 / 1,827.5
 Residual, light brown, Clayey SAND, loose, wet. SC

Same medium dense, Bottom of Hole @ 1,825.5 ft Elevation

REMARKS: Rig Type: Sounding Rod.
 Book 23, Page 49

PAGE 1 OF 1

S-IR-03

SPT_LOG:0011-102-716_070919.GPJ:SPT7.GDT:122718: gINT_version 10.0.000:8/5/19: VDOT

ATTACHMENT - 10

FORM OF THE AGREEMENT

AGREEMENT

THIS CONTRACT, made and entered into this _____ day of _____, 2021, between the **CITY OF BRISTOL, VIRGINIA**, a municipal corporation organized under the laws of the Commonwealth of Virginia (hereinafter “**City**”) and _____ (hereinafter “**Contractor**”).

PREMISES

The **City** intends to widening Lee Highway; I- 81, Exit 5 northbound and south bound off-ramps, and Island Road. The project will include new or upgraded signals at each intersection, new storm drainage systems, provision of conduits and the relocation of existing utilities.

A request for sealed bids for the construction project above described was advertised. **Contractor** was the lowest responsible bidder.

Whereupon, the parties in consideration of the mutual benefits to be derived from this agreement, Ten (\$10.00) Dollars cash paid by each of these parties to the other and all other considerations exchanged by the parties, promises to the other as follows:

THE CONSTRUCTION PROJECT

Contractor will construct improvements in conformity with the Contract Documents which consist of (1) this Agreement; (2) with City of Bristol Virginia plans for Capital Project No. 95735, Lee Highway Widening – Phase 1B, to include all notes and specifications contained therein; (3) the Bid Documents, (4) the current edition of the Virginia Department of Transportation Road and Bridge Specifications; (5) the current edition of Virginia Department of Transportation Road and Bridge Standards; (6) current edition of Virginia Work Area Protection Manual;(7) current edition of FHWA Manual on Uniform Traffic Control Devices (MUTCD); (8) current edition of Virginia Supplement to the MUTCD;(9) current edition of the Virginia Erosion and Sediment Control Handbook; and (10) Addenda No. _____ through No. _____ which are applicable to this project and incorporated in this Agreement by reference as though included verbatim.

BONDS

Contractor with this contract tenders a performance bond on a form approved by **City** with corporate surety in the amount of one hundred percent (100%) of the contract price. Additionally, **Contractor** tenders with this contract a payment bond guaranteeing payment to all subcontractors, materialmen and any other supplying material or labor to the construction project in the amount of one hundred percent (100%) of the contract price.

INSURANCE

Contractor shall have in place a liability policy commensurate with the requirements of Section 2.1.4 INSURANCE REQUIREMENTS of the INVITATION TO BID in a minimum amount of **ONE MILLION (\$1,000,000.00) DOLLARS** insuring against the liabilities of **Contractor** and **City** for any claim or injury to property or person arising from the construction project. **City** shall be named as an additional insured and certificate holder in said policy. **City** shall have no liability for payment of any premium. **Contractor** shall also provide Worker's Compensation covering all employees and all other employees of materialmen or Subcontractors or other worker involved with this construction project.

EMPLOYMENT DISCRIMINATION

In accordance with the Code of Virginia, section 2.2-4311, during the performance of this contract, the **Contractor** agrees as follows:

- a. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or other basis prohibited by state law relating to discrimination in employment, except where there is bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- b. The contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such contractor is an equal opportunity employer.
- c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

The contractor will include the provisions of the foregoing paragraphs a, b and c in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

DRUG-FREE WORKPLACE

In accordance with the Code of Virginia, section 2.2-4312, during the performance of this contract, the **Contractor** agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

IMMIGRATION LAWS

During the performance of this contract, the Contractor shall not knowingly employ an unauthorized alien as defined in the Federal Immigration Reform Act of 1986.

WORK SCHEDULE

Contractor shall commence construction in accordance with a written Notice to Proceed to be issued by **City**. **Contractor** shall be substantially complete by **Date**. Substantial completion is defined as surface asphalt in place with final pavement markings, signals in full operation, completed bioretention basin, completed median landscaping and all other concrete in place. **Contractor** shall meet all milestone and completion dates as set forth in Section 2.1.3.3 Times for Completion of the bid document. **Contractor** shall include time within the work schedule to allow for normal adverse weather conditions, coordination of noted utility relocations and/or possible utility infrastructure emergencies to be performed by others. Times for completion may be extended for delays caused by acts of God which prevents the prosecution of any work on the project, if **Contractor** requests an extension of time within ten (10) calendar days of the delaying event and **City** approves an extension of time in writing. **City's** approval shall not be unreasonably withheld.

DILIGENCE

Contractor shall at all times maintain sufficient personnel, material and equipment, including necessary subcontractors, on the project to prosecute the work on every day that weather permits except for Sundays. **Contractor's** failure to prosecute the work as set forth herein may be cause for **City** to close the project and keep the project closed until **Contractor** has provided adequate assurances that sufficient personnel, material and equipment will be present on the project at all times in the future. Additionally, **Contractor** shall provide a full time Project Superintendent who shall be present on the project at all times work is in progress. In instances of the Project Superintendent's necessary absence, **Contractor** shall designate another qualified person to assume the responsibilities of Project Superintendent until the return of the Project Superintendent and shall make said person's identity known to **City's** agent on the project prior to Project Superintendent leaving the project. Failure by the **Contractor** or Project Superintendent to comply with this provision may result in **City's** closure of the project until **Contractor** has provided sufficient assurance that qualified supervisory personnel will be present at all times in the future. Delays caused by a shut down shall not be cause for an extension of the contract time.

CONTRACT PRICE

City shall pay to **Contractor** the sum of _____ Dollars and _____ Cents (\$ _____), subject to additions and deletions as provided in the Contract Documents, for all work necessary for the proper completion of the construction project. **Contractor** shall complete all such work for the contract price agreed upon as set forth hereinabove. There shall be no addition(s) or deletion(s) to the contract price without the prior written approval of a Change Order by **City**.

SCHEDULE OF PROGRESS PAYMENTS

City shall, by the tenth of each month, pay to **Contractor** all amounts for completed work billed to **City** by the twentieth of each preceding month. **Contractor** shall submit a monthly bill to **City**. Failure of **Contractor** to submit any monthly billing shall not be cause for **City** paying more than a single thirty (30) day billing at any time during the course of the project except as provided hereafter.

MISCELLANEOUS

1. This Agreement will be governed by the law of the Commonwealth of Virginia.
2. Each of the provisions and subprovisions of the Agreement are declared by the parties to be severable. If any provision and subprovision of this Agreement is declared to be invalid, all other provisions and subprovisions of this Agreement shall remain in full force and effect.
3. **Contractor** shall not assign any rights or obligations it has in this Agreement without prior written consent of the **City**.
4. **Contractor** shall submit to **City**, prior to commencement of construction, a list of subcontractors and materialmen whom **Contractor** proposes to involve in the construction project, said subcontractors or materialmen shall be subject to approval by **City**. If **City** objects to any Subcontractor or materialman, the basis for such objection shall be provided to the **Contractor** in writing.
5. No modification of this Agreement shall be effective unless the same shall be reduced to writing and executed by both parties to this Agreement.
6. Notices and all other writings given to **City** pursuant to this Agreement shall be made to **Joseph Daft PE, City Engineer, 300 Lee Street, Bristol, Virginia 24201-4327**, and to **Contractor** at

Witness the signatures and seals of the parties the day, month and year first above written.

THE CITY OF BRISTOL VIRGINIA

BY: _____
Randall C. Eads, City Manager

ATTEST: _____
City Clerk

**STATE OF VIRGINIA
CITY OF BRISTOL**

The foregoing instrument was acknowledged before me this _____ day of _____, 2021, by Randall C. Eads City Manager on behalf of the City of Bristol, Virginia, a Virginia Municipal Corporation

Notary Public

My Commission Expires _____

CONTRACTOR

BY: _____
(Title)

ATTEST: _____
Print Name & Title:

STATE OF VIRGINIA
CITY/COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of
_____, 2020
, by _____ on behalf of
_____.

Notary Public

My Commission Expires _____

ATTACHMENT - 11

REQUIRED FEDERAL FORMS

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

--DO NOT DETACH--

**THIS INFORMATION MUST BE SUBMITTED
WITHIN 2 DAYS AFTER BID OPENING IF YOUR
BID DOES NOT MEET THE PROJECT DBE
REQUIREMENTS, OR
WHEN REQUESTED BY VDOT**

CONTRACT I.D. NUMBER _____

PROJECT NUMBER _____

FHWA NUMBER _____

DISTRICT _____

DATE BID SUBMITTED _____

BIDDER'S NAME _____

SIGNATURE _____

TITLE _____

VENDOR NUMBER _____

DBE GOAL FROM BID PROPOSAL _____

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ SIGNATURE _____

TITLE _____

NAMES OF CERTIFIED DBEs AND THE DATES ON WHICH THEY WERE SOLICITED TO BID ON THIS PROJECT

INCLUDE THE ITEMS OF WORK OFFERED AND THE DATES AND METHODS USED FOR FOLLOWING UP INITIAL SOLICITATIONS TO DETERMINE WHETHER OR NOT DBEs WERE INTERESTED.

NAMES AND VENDOR NUMBERS OF DBEs SOLICITED	DATE OF INITIAL SOLICITATION	ITEM(S) OF WORK	FOLLOW-UP METHODS AND DATES

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

ATTACH COPIES OF SOLICITATIONS, TELEPHONE RECORDS, FAX CONFIRMATIONS, ELECTRONIC INFORMATION, ETC.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ SIGNATURE _____

TITLE _____

TELEPHONE LOG

DBE(s) CALLED	TELEPHONE NUMBER	DATE CALLED	TIME CALLED	CONTACT PERSON OR VOICE MAIL STATUS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

COMMONWEALTH OF VIRGINIA
 DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ SIGNATURE _____

TITLE _____

ITEM(S) OF WORK THAT THE BIDDER MADE AVAILABLE TO DBE FIRMS

IDENTIFY THOSE ITEM(S) OF WORK THAT THE BIDDER MADE AVAILABLE TO DBE FIRMS OR THOSE ITEM(S) THE BIDDER IDENTIFIED AND DETERMINED TO SUBDIVIDE INTO ECONOMICALLY FEASIBLE UNITS TO FACILITATE DBE PARTICIPATION. FOR EACH ITEM LISTED, SHOW THE DOLLAR VALUE AND PERCENTAGE OF THE TOTAL CONTRACT AMOUNT. IT IS THE BIDDER'S RESPONSIBILITY TO DEMONSTRATE THAT SUFFICIENT WORK TO MEET THE GOAL WAS MADE AVAILABLE TO DBE FIRMS.

ITEM(S) OF WORK MADE AVAILABLE	BIDDER NORMALLY PERFORMS ITEM(S) (Y/N)	ITEM(S) BROKEN DOWN TO FACILITATE PARTICIPATION (Y/N)	AMOUNT IN DOLLARS	PERCENTAGE OF CONTRACT

**NOTE: INFORMATION REQUIRED FOR THIS SECTION CONTINUED ON SHEET 5
 ATTACH ADDITIONAL PAGES IF NECESSARY**

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ SIGNATURE _____

TITLE _____

**ADDITIONAL INFORMATION REGARDING ITEM(S) OF WORK THAT THE
BIDDER MADE AVAILABLE TO DBE FIRMS** (Continued From Sheet 4)

ITEM(S) OF WORK MADE AVAILABLE, NAMES OF SELECTED FIRMS AND DBE STATUS, DBEs THAT PROVIDED QUOTES, PRICE QUOTE FOR EACH FIRM, AND THE PRICE DIFFERENCE FOR EACH DBE IF THE SELECTED FIRM IS NOT A DBE.

ITEM(S) OF WORK MADE AVAILABLE(CONT.)	NAME OF SELECTED FIRM AND VENDOR NUMBER	DBE OR NON-DBE	NAME OF REJECTED FIRM(S)	QUOTE IN DOLLARS	PRICE DIFFERENCE IN DOLLARS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

IF THE FIRM SELECTED FOR THE ITEM IS NOT A DBE, PROVIDE THE REASON(S) FOR THE SELECTION ON A SEPARATE PAGE AND ATTACH.

PROVIDE NAMES, ADDRESSES, AND TELEPHONE NUMBERS FOR THE FIRMS LISTED ABOVE.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ SIGNATURE _____

TITLE _____

ADVERTISEMENTS OR PROOFS OF PUBLICATION.

NAMES AND DATES OF EACH PUBLICATION IN WHICH A REQUEST FOR DBE PARTICIPATION FOR THE PROJECT WAS PLACED BY THE BIDDER. ATTACH COPIES OF PUBLISHED ADVERTISEMENTS OR PROOFS OF PUBLICATION.

PUBLICATIONS	DATES OF ADVERTISEMENT

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ SIGNATURE _____

TITLE _____

NAMES OF AGENCIES CONTACTED TO PROVIDE ASSISTANCE

NAMES OF AGENCIES (SEE SPECIAL PROVISION FOR 107.15) AND THE DATES THESE AGENCIES WERE CONTACTED TO PROVIDE ASSISTANCE IN CONTACTING, RECRUITING, AND USING DBE FIRMS. IF THE AGENCIES WERE CONTACTED IN WRITING, ATTACH COPIES OF SUPPORTING DOCUMENTS.

NAME OF AGENCY	METHOD AND DATE OF CONTACT	RESULTS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ SIGNATURE _____

TITLE _____

TECHNICAL ASSISTANCE AND INFORMATION PROVIDED TO DBEs

EFFORTS MADE TO PROVIDE INTERESTED DBEs WITH ADEQUATE INFORMATION ABOUT THE PLANS, SPECIFICATIONS, AND REQUIREMENTS OF THE BID DOCUMENTS TO ASSIST THE DBEs IN RESPONDING TO A SOLICITATION.

IDENTIFY THE DBEs ASSISTED, THE INFORMATION PROVIDED, AND THE DATE OF CONTACT. ATTACH COPIES OF SUPPORTING DOCUMENTS.

DBEs ASSISTED	INFORMATION PROVIDED	DATE OF CONTACT

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ SIGNATURE _____

TITLE _____

EFFORTS MADE TO ASSIST DBEs OBTAIN BONDING, LINES OF CREDIT, INSURANCE, ETC.

EFFORTS MADE TO PROVIDE INTERESTED DBEs IN OBTAINING BONDING, LINES OF CREDIT, INSURANCE, NECESSARY EQUIPMENT, SUPPLIES, MATERIALS, OR RELATED ASSISTANCE OR SERVICES, EXCLUDING SUPPLIES AND EQUIPMENT THE SUBCONTRACTOR PURCHASES OR LEASES FROM THE PRIME CONTRACTOR OR ITS AFFILIATES.

IDENTIFY THE DBEs ASSISTED, THE ASSISTANCE OFFERED, AND THE DATES OF SERVICES OFFERED AND PROVIDED. ATTACH COPIES OF SUPPORTING DOCUMENTS.

DBEs ASSISTED	ASSISTANCE OFFERED	DATES SERVICES OFFERED AND/OR PROVIDED

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ SIGNATURE _____

TITLE _____

ADDITIONAL DATA TO SUPPORT DEMONSTRATION OF GOOD FAITH EFFORTS

ADDITIONAL DATA TO SUPPORT DEMONSTRATION OF GOOD FAITH EFFORTS

NOTE: ATTACH ADDITIONAL PAGES, IF NECESSARY

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

PROJECT:

FHWA:

This form must be completed, signed and returned with bid; and failure to do so may result in the rejection of your bid. **THE CONTRACTOR SHALL AFFIRM THE FOLLOWING STATEMENT EITHER BY SIGNING THE AFFIDAVIT AND HAVING IT NOTARIZED OR BY SIGNING THE UNSWORN DECLARATION UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES.** A SEPARATE FORM MUST BE SUBMITTED BY EACH PRINCIPAL OF A JOINT VENTURE BID.

STATEMENT. In preparation and submission of this bid, I, the firm, corporation or officers, agents or employees thereof did not, either directly or indirectly, enter into any combination or arrangement with any persons, firm or corporation or enter into any agreement, participate in any collusion, or otherwise take any action in the restraint of free, competitive bidding in violation of the Sherman Act (15 U.S.C. Section 1) or Article 1.1 or Chapter 12 of Title 18.2 (Virginia Governmental Frauds Act), Sections 59.1-9.1 through 59.1-9.17 or Sections 59.1-68.6 through 59.1-68.8 of the Code of Virginia.

AFFIDAVIT

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at _____, this ____ day of _____, 20 ____
County (City), STATE

(Name of Firm) By: _____ Title (print)
(Signature)

STATE of _____ COUNTY (CITY) of _____

To-wit: _____

I _____, a Notary Public in and for the State and
County(City) aforesaid, hereby certify that this day _____

personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

Subscribed and sworn to before me this _____ day of _____, 20 ____
My Commission expires _____

Notary Public

**OR
UNSWORN DECLARATION**

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at _____, this ____ day of _____, 20 ____
County (City), STATE

(Name of Firm) By: _____ Title (print)
(Signature)

ORDER NO.:
CONTRACT ID. NO.:

Form C-105
Rev. 7-13-05

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
AFFIDAVIT

PROJECT:

FHWA:

This form must be completed, signed, notarized and returned with bid; and failure to do so, may result in the rejection of your bid. A separate form must be submitted by each principal of a joint venture bid.

1. I, the firm, corporation or officers, agents or employees thereof have neither directly nor indirectly entered into any combination or arrangement with any person, firm or corporation or entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract, the effect of which is to prevent competition or increase the cost of construction or maintenance of roads or bridges.

During the preceding twelve months, I (we) have been a member of the following Highway Contractor's Associations, as defined in Section 33.2-1106 of the Code of Virginia. (If none, so state).

NAME	Location of Principal Office
_____	_____
_____	_____
_____	_____

2. I (we) have _____, have not , participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that I/We have , have not , filed with the joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor [41 CFR 60-1.7(b)(1)], and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contract or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contract and subcontract unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

(Continued)

ORDER NO.:
CONTRACT ID. NO.:

Form C-105
page 2

3. The bidder certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offence in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated above; and
 - (d) Where the bidders is unable to certify to any of the statements in this certification, the bidder shall show an explanation below.

Explanations will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any explanation noted, indicate below to whom it applies, initiating agency, and dates of action. Providing false information may result in federal criminal prosecution or administration sanctions. The bidder shall provide immediate written notice to the Department if at any time the bidder learns that its certification was erroneous when submitted or has become erroneous by reason of change circumstances.

The undersigned is duly authorized by the bidder to make the foregoing statements to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at _____, this ____ day of _____, 20 ____
County (City), STATE

By: _____
(Name of Firm) (Signature) Title (print)

STATE of _____ COUNTY (CITY) of _____

To-wit:

I _____, a Notary Public in and for the State and
County(City) aforesaid, hereby certify that this day _____

personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

Subscribed and sworn to before me this _____ day of _____, 20 ____

My Commission expires _____

Notary Public

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
CERTIFICATION OF BINDING AGREEMENT
WITH
DISADVANTAGED BUSINESS ENTERPRISE FIRMS

Project No.:

Federal Project No.:

This form is to be submitted in accordance with the Department's Special Provision for Section 107.15.

It is hereby certified by the below signed Contractors that there exists a written quote, acceptable to the parties involved preliminary to a binding subcontract agreement stating the details concerning the work to be performed and the price which will be paid for the aforementioned work. This document is not intended to, nor should it be construed to, contain the entire text of the agreement between the contracting parties. This document does not take the place of, nor may it be substituted for, an official subcontracting agreement in those situations that may require such an agreement. A copy of the fully executed *subcontract agreement* shall be submitted to the Engineer within fourteen (14) business days after contract execution.

It is further certified that the aforementioned mutually acceptable quote and fully executed subcontract agreement represent the entire agreement between the parties involved and that no conversations, verbal agreements, or other forms of non-written representations shall serve to add to, delete, or modify the terms as stated.

The prime Contractor further represents that the aforementioned mutually acceptable quote and fully executed subcontract agreement shall remain on file for a period of not less than one year following completion of the prime's contract with the Department or for such longer period as provisions of governing Federal or State law or regulations may require. For purposes of this form, the term Prime Contractor shall refer to any Contractor utilizing a DBE subcontractor, regardless of tier, in which they are claiming DBE credit toward the contract goal.

Contractors further jointly and severally represent that said binding agreement is for the performance of a "commercially useful function" as that term is employed in 49 C.F.R. Part 26.55 (c), (d).

**TO BE SIGNED BY THE SUBCONTRACTOR TO THE PRIME CONTRACTOR, AND ANY LOWER TIER
SUBCONTRACTORS HAVING A CONTRACT WITH THE BELOW NAMED DBE FIRM**

Prime Contractor _____

By: _____
Signature Title

Date: _____

First Tier
Subcontractor if
Applicable

By: _____
Signature Title

Date: _____

Second Tier
Subcontractor if
Applicable

By: _____
Signature Title

Date: _____

Third Tier
Subcontractor if
Applicable

By: _____
Signature Title

Date: _____

DBE Contractor

By: _____
Signature Title

Date: _____